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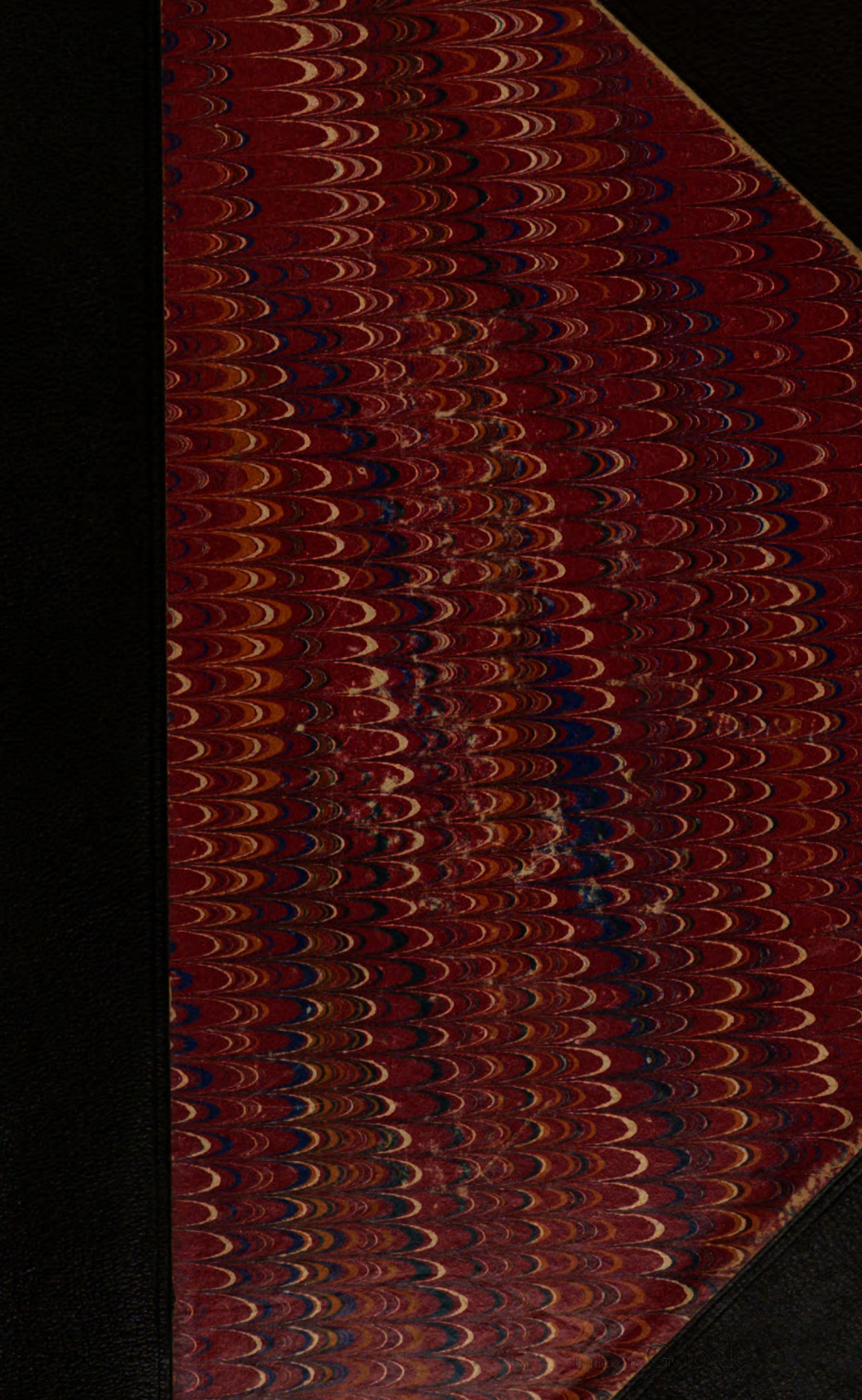
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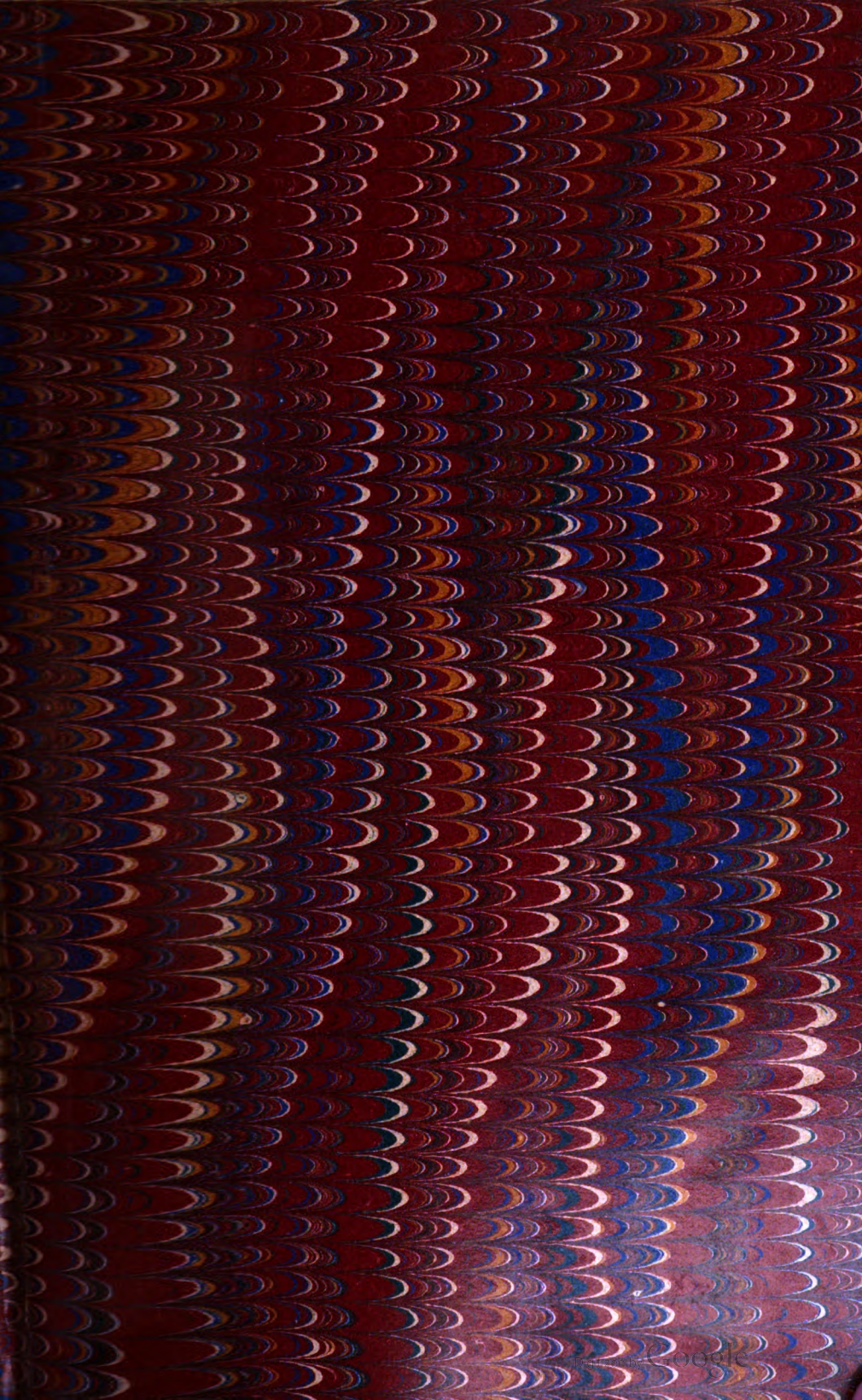
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U.S. Bureau of statistics (Treasury dept.)  
LABOR

IN

# EUROPE AND AMERICA:

A SPECIAL REPORT ON

THE RATES OF WAGES, THE COST OF SUBSISTENCE, AND  
THE CONDITION OF THE WORKING CLASSES

IN

GREAT BRITAIN, GERMANY, FRANCE, BELGIUM,

AND

OTHER COUNTRIES OF EUROPE;

ALSO IN

THE UNITED STATES AND BRITISH AMERICA.

BY

EDWARD YOUNG, Ph. D.,

CHIEF OF THE UNITED STATES BUREAU OF STATISTICS.

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Homo sum: humani nihil a me alienum puto.—TERENCE.

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## LETTER TO THE SECRETARY OF THE TREASURY.

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TREASURY DEPARTMENT,  
BUREAU OF STATISTICS,  
*Washington, June 17, 1875.*

**SIR:** In a country like ours, where all useful labor is deemed honorable, where the existence of popular suffrage renders the working-classes the chief repository of political power, and where the sentiment of the people harmonizes with the national traditions in support of a policy calculated to preserve, as between employers and the employed, that equality of rights asserted in our fundamental theories of government, all trustworthy information on the subject of labor possesses an interest which becomes more general and pronounced as the rapidly-developing industries of the country increase in diversity and extent.

This interest has been much enhanced of late in consequence of the agitation in regard to the relations between capital and labor, which has signally marked the last decade; and since the organization of this Bureau the applications for information on this subject have steadily increased in number. Such applications are received from various classes of persons—from political economists and students of social science, from journalists engaged in the discussion of economic and social questions, from philanthropists desirous of improving the condition of the working-classes, from representatives of labor associations, from persons representing the interests of employers, and, finally, from prominent members of both Houses of Congress desirous of applying to the task of practical legislation such data on the subject of labor at home and abroad as have been acquired by observation and experience. These applications have been especially numerous in connection with legislation on the subject of the tariff, and a review of the debates on tariff legislation\*, for many years past, will show with what avidity both protectionists and free-traders have availed themselves of any information within their reach upon the subject under consideration, and especially on the cost of labor and condition of the laborer in those countries of Europe which compete most sharply with American manufactures.

It was owing to the frequency and urgency of the demands for such information, coupled with the inability of the Bureau of Statistics to supply the same from its ordinary sources of intelligence, that the undersigned was induced, when in Europe as a delegate to the International Statistical Congress in 1872, to avail himself of the opportunities thus

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\* See Special Report on the Customs-Tariff Legislation of the United States.



afforded for commencing an inquiry into the rates of wages, the cost of subsistence, and the condition of the working-classes in the Old World. Instead, therefore, of visiting those parts of Europe which possessed the greatest interest to a citizen of the New World, he employed the leisure time at his command in making investigations on this subject in the chief seats of manufacturing industry. The murky, soot-laden atmosphere of Birmingham, Wolverhampton, Sheffield, Leeds, and other industrial centers of Great Britain, was less inviting than the health-inspiring breezes of her hills and fields, while their great workshops and factories were far less attractive from an æsthetic point of view than those "epics in stone" which commemorate the devotional spirit and architectural skill of our mediæval ancestors. It was among the former, however, that the information needed for this report had to be collected. So, on the Continent, it was necessary to spend much time at such busy seats of industry as Chemnitz, Essen, Barmen, Seraing, Huy, Jumet, and Charleroi, and similar towns, while many places far richer in historic associations, architectural beauty, and the treasures of art and science, received but a transient visit, or were omitted altogether.

The difficulties which obstructed the prosecution of this inquiry were numerous and formidable, but the success of the work undertaken demanded that they should be met and surmounted. The disinclination of many employers to make known the rates of wages paid by them in the different branches of their work was overcome in some cases by a judicious presentation of the subject and a due exercise of tact, while the disposition of others to answer inquiries in a general and perfunctory manner was met by care and minuteness in the preparation of questions; but there were instances in which it was necessary to exercise no small amount of determination and persistence in order to obtain the information desired. A single illustration, in addition to the case mentioned on page 521, may be given. The director of the largest and most widely-known establishment in one important branch of industry declined to communicate to the United States consul of the district information in regard to the rates of wages paid in the mills under his direction; it was subsequently secured, however, by the undersigned, but only after nearly two days had been devoted to thoughtful preparation and active exertion.

The readers of this report will probably notice the omission of any formal comparison between the conditions of labor in the various countries of Europe and corresponding industries in the United States, or of any conclusions as to the relative advantages possessed by the Old World and the New for the prosecution of manufacturing industry. If this omission be regarded as a defect, it is due to the undersigned to say that it is an intentional one. In attempting such a comparison it would be difficult, if not impossible, to avoid discussing the effects of customs-tariffs upon the prosperity of manufactures in this and other countries. This result is foreign to the wish of the undersigned,

and incompatible with the neutrality appropriate to his official position. Had it been prepared by a citizen not officially connected with the Government, the course hinted at might with entire propriety have been pursued; yet it is possible that the advantage thus gained in logical completeness would be more than neutralized by the loss of confidence which a work of this character would necessarily sustain if affected by a partisan bias.

In the preparation of this volume such bias has been sedulously avoided. The author has not aspired to erect an edifice, but has confined himself to the humbler, though he hopes not less useful, task of preparing the materials—of quarrying, hewing, and polishing the stones, carefully observing that their quality is good, their lines mathematically accurate, and their integrity and trustworthiness undoubted—but leaving to others the distinction, not only of erecting the structure but also of determining the use to which it shall be devoted when complete. To drop the figure, it is as much the inclination as the duty of the undersigned impartially to gather, collate, and publish FACTS, leaving it to others to deduce therefrom such conclusions as from their respective points of view may seem legitimate.

He does not profess, however, to be without opinions on economic matters. One who has watched the growth of industry and the various mutations by which it has been affected during a period of nearly forty years; who has witnessed each financial crisis from 1837 to 1873, and observed its effects upon industry and trade; who has attentively followed the course of tariff-legislation from 1842 to the present time, and who during the last twenty-three years has been more or less engaged in gathering and publishing statistics of American industry, could not make such an avowal without self-stultification; nor could he, unless wanting in patriotic sentiment, fail to take a lively interest in any governmental policy whereby the prosperity of our common country might be affected. The noble sentiment of a Roman poet,\* which has been adopted as a motto, may be fitly paraphrased by the author of this report in the expression, "I am an American, and cannot be indifferent to whatever concerns America."

That the report contains imperfections the author is well aware. With fewer demands upon his attention he might have improved it in various respects; but he has found it necessary to work under such conditions as were permitted by the engrossing labors incident to the direction of an important Bureau, and he therefore submits it to you, Mr. Secretary, and through you to Congress and to the country, as his contribution to industrial literature, in the hope that, whatever its defects of style, arrangement, or treatment, the mass of new information which it contains will make it a source of benefit to his fellow-toilers in all departments of physical and mental labor. In money, it has involved a not inconsiderable expenditure from his private funds; in labor, its cost

\* *Homo sum; humani nihil a me alienum puto.*

has been so great as to give him a more vivid idea of the meaning of that word than he had when he defined it upon the initial page of the report as "exertion attended with pain or fatigue."

In conclusion, he desires to make an acknowledgment to those whose substantial assistance has facilitated his labors :

To the honorable Hamilton Fish, Secretary of State, for the interest which he kindly evinced in the inquiry, and for a circular letter to the ministers and consuls of the United States in Europe; to the consular officers hereinafter named for their effective aid; to the ministers of Germany and Belgium at Washington, who voluntarily furnished letters asking that all proper facilities be afforded in the prosecution of his inquiries in their respective countries; to Mr. J. P. Harris-Gastrell, of the British legation, for numerous letters to parties in England; to influential merchants in New York, especially to Messrs. A. T. Stewart & Co., who instructed their agents in Europe to render to the undersigned all possible assistance in the prosecution of his task\*; and, finally, to Mr. E. T. Peters, librarian of the Bureau, for large assistance in the preparation of the early chapters of the work, especially of the historical portion, and also for obtaining at his own cost, while recently in England, information in regard to trades-unions, and for preparing the chapter thereon.

Respectfully submitted,

EDWARD YOUNG,  
*Chief of Bureau of Statistics.*

HON. BENJAMIN H. BRISTOW,  
*Secretary of the Treasury.*

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\* But for the active assistance of the agents of Messrs. Stewart & Co. at Berlin and Chemnitz, in collecting a large amount of information relative to Prussia and Saxony, the statements in the report in regard to wages in Germany would have been far less accurate and complete than they now are.

## LABOR IN EUROPE AND AMERICA.

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Since the day when our primal progenitor was expelled from Eden, and the doom pronounced, "In the sweat of thy face shalt thou eat bread," the subject of labor has been one of absorbing interest. To trace it from the earliest historic period to the present time, through all the vicissitudes which our race has experienced, would be a difficult if not an impossible task; and yet the subject has of late assumed such gigantic proportions as to demand the most careful consideration.

It may be well, in the outset, to accurately define the word "labor." It is generally, but we believe incorrectly, used as a synonym for "work." The latter word denotes occupation or employment, but not necessarily of a toilsome or fatiguing character, while the former, as Worcester's first definition properly expresses it, implies "exertion attended with pain or fatigue, hard work, task, toil, &c." Work may be performed not only without pain or fatigue, but with positive pleasure.

Notwithstanding this difference of signification, the words "work" and "workmen" will, in the following pages, be regarded as synonymous with "labor" and "laborers," partly as a concession to popular use, but chiefly to avoid the frequent repetition of those words.

### ORIGIN OF SLAVERY, AND DEVELOPMENT OF WAGE LABOR.

From the earliest times of which there exists any authentic record, the performance of the labor necessary to sustain life has been an occasion of contention and struggle in human society. The desire to escape from this necessary toil, or the ambition to possess more than their own labor could produce, has always impelled men to seek in some way to control the services of their fellows. "The simple wish," says Maine in his *Ancient Law*, "to use the bodily powers of another person as a means of ministering to one's own ease or pleasure is doubtless the foundation of slavery, and as old as human nature." In the more advanced portions of the modern world slavery is forbidden, and it is only through the intervention of those subtle forces known as the "laws of trade" that one man can derive profit from the labor of another. In a more primitive state of society this process was far more simple and direct. There "the wish to use the bodily powers of another," if accompanied by adequate power, went straight to its object by reducing to bondage the person whose services were desired. Thus, born of the rude impulses of men at a stage of social development when the right of the stronger was the prevailing law, slavery is everywhere found as an already established fact in the very infancy of civilization. Among the nations of antiquity, the most polished as well as the rudest, slavery was universal; and it is only within a comparatively recent period that it has disappeared even from the most enlightened nations of modern times. In our own country less than a decade has elapsed since its final abolition by the adoption of the thirteenth amendment to the Constitution, and it was but a few years earlier that Alexander II issued the edict which terminated serfdom in Russia. The Spanish republic, falling in with the spirit of the age, has but just done what the Spanish monarchy so long refused to do, by adopting legislation looking to the abolition of slavery in the Antilles; while in Brazil the process of emancipation, inaugurated by the law of September 28, 1871, will prob-

ably not be completed for many years to come. Under most if not all of the native governments of Asia, slavery, in some form, still remains undisturbed; in Egypt it flourishes under the reign of the present khedive; notwithstanding the efforts of that potentate to cultivate the friendship and good opinion of western rulers; and on certain portions of the African coast, as well as among the islands of Polynesia, some of the most revolting features of the slave-trade appear to have been recently revived.

It thus appears that slavery is one of the most conspicuous facts of human history; and its universal prevalence in former times has undoubtedly had a potent influence in the genesis of the labor question of the present day. Cassagnac, in his *History of the Working and Burgher Classes*, takes the position that the classes of which he treats are universally the descendants of former slaves. The theories of this writer were grossly warped by his own aristocratic pride and prejudice; yet there is no lack of historical evidence that slavery preceded wage labor in the process of social evolution, and that hired laborers, who have only appeared to any considerable extent in communities which had made some progress in civilization and in the diversification of industry, were chiefly drawn at first from a class which had been previously enslaved.

For ages the process of enslavement and that of gradual elevation out of slavery went on side by side. The ways by which persons fell into slavery were various. Cassagnac maintains that this system, or rather this thing—for it doubtless existed as a fact long before the relations it involved were defined in any code of law—had its origin in the absolute authority of the father over his children. That this was one of its early sources there is good reason to believe, for history affords many instances of the sale of children by their fathers. Laban bargained away his daughter Rachel to Jacob for seven years' service; and though he sold her for a wife, and not for a slave, the principle of possession and of the right of exchange for a pecuniary equivalent is clearly recognized in the transaction. Xenophon, in his *Anabasis*, mentions a Thracian king who offered to give him his daughter, and proposed to buy his if he had one; and in Athens, as late as the time of Solon, there was, according to Plutarch, no law to forbid the sale of children. It is said, too, that Athenian fathers not unfrequently availed themselves of their prerogative in this respect. It often happens that the customs of certain existing communities, who are now at a stage of social development corresponding to that of other communities at a remote period in the past, serve to illustrate the customs of the latter. Thus, as Maine expresses it in his *Village Communities*, "direct observation comes to the aid of historical inquiry." An instance of this kind is furnished by the Georgians and Circassians in the notorious practice which prevails among them of selling their daughters to become the wives or concubines of wealthy Turks. It is not difficult to believe that in semi-civilized, polygamous societies the children born of wives or concubines for whom a price had been paid would often be regarded by the father in the light of property. A few would be treated as favorites, but toward the greater number paternal affection would have but little force, and such as were objects of dislike would occasionally be sold; while others, less bright, energetic and ambitious than their brothers and sisters, would be assigned to servile tasks, and, through prolonged drudgery, finally sink into veritable slavery, in which condition their children would find themselves from infancy. If it be remembered that in such communities families were often very numerous, and composed



of the offspring of several different mothers, it will not seem improbable that dull or uncomely children, especially those of concubines, or of unloved wives, were in many instances thus treated.

The sale of Joseph to the Midianites, by his brethren, was an instance of the exercise of the right of the stronger, to which there have doubtless been many analogous cases.

Another source of slavery at a later period was debt, and the power which in many countries law and custom have given to the creditor over the body of the debtor. Tacitus states that among the ancient Germans the love of gambling was such that when everything else was gone, a player would often stake his liberty on the last throw, and, if he lost, would quietly suffer himself to be bound and sold. St. Ambrose mentions a similar custom as having prevailed among the Huns. In some instances, men pursued by their enemies or by the law, bartered their liberty for the privilege of asylum.

But beyond doubt the chief source of slavery was subjugation in war. In some cases a conquered territory was seized by the victors and the great mass of its former inhabitants reduced to a state of servitude. In others vast numbers of prisoners were carried into captivity and reduced to slavery in the country of their conquerors. According to Josephus the Israelites enslaved the Amalekites, whom they conquered in battle during their journey through the wilderness; and they subsequently spared the Gibeonites on condition of their becoming "hewers of wood and drawers of water" for all time. The biblical record affords numerous instances of conquering armies carrying the conquered into captivity, and the same custom is illustrated in the sculptures of Egypt, Chaldea, and Assyria. The Egyptian king Sesostri<sup>s</sup>,\* returning from a successful expedition through many nations, extending as far as Scythia and Thrace, is described as bringing back vast numbers of captives, whom, according to Herodotus, he employed "in collecting the immense stones used in the construction of the temple of Vulcan," and in digging "those vast and numerous canals by which Egypt is intersected." An inscription on one of the winged bulls found among the ruins of Nineveh states that 208,000 Aramæans were carried into captivity by the Assyrian king Sennacherib in a single raid; and according to the inscription on the Bellino cylinder, the aggregate number of prisoners of war carried into Assyria by the same monarch in three other expeditions exceeded 600,000. Of the vast number of people reduced to slavery under this monarchy alone some conception may be formed when it is remembered that the reigns of many of the Assyrian kings were almost an uninterrupted succession of sanguinary campaigns. Thus Esarhaddon, who, according to Rawlinson, reigned from 680 to 667 B. C., made, during that period of thirteen years, no less than ten or twelve great military expeditions, including one into Egypt and one into the interior of the Arabian peninsula.

The Medo-Persian monarchs appear to have followed the same custom to a considerable extent in the wars by which they attained the hegemony of Asia. Herodotus tells us that, on the capture of Eretria, its inhabitants were made slaves under the orders of Darius (Hystaspes,) which orders appear to have extended to all other prisoners of Greek nationality. The women and children of Miletus were also carried into slavery by the Persians during the reign of the same ruler.† Among

\* Two or more kings are confounded by the Greek writers under this name.

† It was so, also, with the dynasty to whose most conspicuous representative the Persians, a little later, surrendered the rod of empire. Thus Philip, having conquered the Thebans, sold his captives; and his son, the great Alexander, subsequently destroyed their city and sold the inhabitants, irrespective of age or sex, into slavery.

smaller potentates similar practices prevailed. Thus Polycrates, King of Samos, puts into chains the Lesbians captured by him in a naval engagement, and compels them to dig a trench round the walls of his capital. What became of them subsequently we are not informed. In short, during the period under consideration, the practice in question was all but universal. In some instances a turn in the fortunes of war liberated and restored to their homes and possessions the people thus carried into captivity; but in a majority of cases they must have sunk permanently into the slave population.

The multiplication of slaves in this way at certain epochs must have been immense; nor was this phenomenon confined exclusively to ancient times, for Sir John Chardin states that when the Tartars made an incursion into Poland, and carried away as many captives as they could, finding that they would not be redeemed, they sold them for a crown a head; and Menjan, in his History of Algiers, represents a Mohammedan as saying scornfully to a Christian, "What! have you forgotten the time when a Christian at Algiers was scarce worth an onion?" Of the extent which the slave population of the western portion of Asia Minor had attained at the period of the reign of Darius (Hystaspes,) an incidental proof is furnished in the account which Hérodoteus gives of the visit of Aristagoras, prince of Miletus, to the Spartan king Cleomenes, whom he wished to persuade to attempt the liberation of the Ionian Greeks from Persian rule; for among other inducements to invade Asia Minor for this purpose, he mentions the "prodigious number of slaves" which the inhabitants of that region possessed, and which would be at the disposal of the conqueror.

But there was always a limit to the extent of the servile population that could be maintained compatibly with the security of the ruling class. In one instance the slaves of Argos, largely outnumbering the citizens, of whom many had been killed in war, took possession of the government, and held it for a number of years. Another case, familiar to the reader of Grecian history, is that of the revolting Helots of Sparta, who at the time of the great earthquake (470 B. C.) nearly succeeded in overthrowing that state. Another instance is furnished in connection with the irruption of the Scythians into Southwestern Asia in the seventh century before Christ. When these barbarian hordes, after a protracted career of conquest and destruction, were returning to their country, they were met, and for some time successfully resisted, by an army of their former slaves, who, during their prolonged absence, had married their wives and installed themselves at the head of their households as well as of public affairs. Herodotus naively relates that one of the Scythians proposed to his comrades that they throw aside their arrows and their darts, and rush upon their opponents without any weapons save the whips which they used for their horses. "Whilst they see us with arms," said he, "they think themselves our equals in birth and importance; but as soon as they shall see us with the whip in our hands, they will be impressed with a sense of their servile condition and resist no longer." He adds that the plan was successful. In cidentally this account serves to illustrate the similarity of spirit between the ancient and modern slaveholder; for whether the story be true in its details or not, it doubtless harmonized with what the historian knew in regard to the general feeling of masters toward their slaves.

The serious danger involved in too great a preponderance of the ser-

vile class must often have led to the emancipation of considerable numbers of those who composed it. In other cases it may have induced an insensible relaxation in the rigors of their servitude, gradually leading up to their complete liberation; for there is reason to believe that some of the principal nations of antiquity passed through some such phase of social development as that which witnessed the gradual loosening of the bonds of the villeins of feudal Europe, of which latter event there will be occasion to speak more fully hereafter. Occasionally considerable bodies of slaves were emancipated at once by some ruler or military leader, who found it important to secure them as trusty allies; as when Augustus, during the campaign of Sicilius against Sextus Pompeius, liberated 20,000 of this class to make sailors of them.\*

There must also have been frequent cases of individual manumission—sometimes as the result of gratitude, or attachment, on the part of the master; sometimes in fulfillment of agreements entered into with the slave to inspire him with zeal in the exercise, for his master's benefit, of some valuable faculty; while many doubtless worked their way to freedom through sheer force of character and strength of intellect. In these and various other ways the emancipated class must have received continuous accessions throughout the course of history; but in the ancient world, as has just been seen, the class of bondmen was constantly re-enforced by the enslavement of the vast numbers of prisoners taken in war; so that however frequent or extensive may have been the emancipations, slavery never approached extinction, as it did in Europe after the practice of enslaving prisoners had been abandoned.

The effect of this continued process of enslavement on the one hand and emancipation on the other must have been to build up a numerous proletariat occupying a position but little superior, at least as regards physical comfort, to that of the slaves themselves. For slavery stripped its victim of whatever possessions he enjoyed previous to his enslavement; and when he, or perhaps his remote descendant, emerged from that condition, it was to find himself destitute, dependent, and obliged to procure his daily bread by working for such wages as he could obtain in competition with the slave labor by which he was surrounded.

Here then, in brief, is the great central fact in respect to labor in the ancient world, namely, the supremacy of military power in industrial as well as in political relations.† For if the whip was the symbol of industrial masterhood, the sword was unceasingly employed in providing fresh shoulders for its blows; and the sword, too, as has been seen, was chiefly instrumental in preparing available material out of which to form the class of hired laborers.‡

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\*Ptolemy Philadelphus liberated and restored to their homes 120,000 Jewish captives, who, at the close of the war in which they were taken, had been sold by the government as slaves to such of the inhabitants as chose to purchase them. On their emancipation, the owners were reimbursed out of the royal treasury. The motive for this unusual act of generosity was quite unique, being no other than the desire to add to the famous Alexandrian library the Hebrew Scriptures, to accomplish which the king deemed it necessary to secure the co-operation of the Jewish authorities, and took this method of gaining their good will.

†It would be too much to say that this supremacy of the sword in industry has wholly disappeared, even now, in countries where a strike for increased wages is liable to be treated as an offense against the state, and suppressed by military power.

‡This effect was often produced by the vast destruction of property which occurred in war, leaving tens of thousands not absolutely enslaved, but so destitute as to have no resource but hired labor. Modern times furnish an instance of the reduction of large numbers of people, who were carrying on some small productive business for themselves, to the position of wage laborers through the agency of a revolution in industrial methods. To this there will be occasion to refer again when treating of the introduction of machinery as an industrial agent.

As to the actual life of the working-classes in ancient times something may be inferred from such fundamental conditions as that which has just been pointed out. For the rest it will be necessary to depend on the casual glimpses which ancient history affords. Doubtless there were communities of greater or less extent which had for generations escaped the terrors of war; whose social arrangements, if not founded upon absolute equity, were at least comparatively free from the effects of violence and injustice; and whose condition, under the favoring smiles of nature, was at certain fortunate periods sufficiently happy to suggest to the imagination the poetic picture of Arcadia. Both in sacred and profane history there are indications of a social state in which wealth and rank did not carry with them a contempt for labor. Thus Abraham's servant, when sent into Mesopotamia in quest of a wife for Isaac, stationed himself at a well near the city of Nahor, apparently not doubting that among the damsels who came thither to draw water he would find a suitable companion for the son and prospective heir of his wealthy master. It was under similar circumstances that Moses encountered the daughters of Jethro, priest of Midian, who had come to the well to fill the troughs for their father's flocks. Herodotus (viii, 137) says that "in remoter times the families even of kings had but little money, and it was the business of the queen herself to cook for her husband"—a state of primitive simplicity to which a fair counterpart is found in Volney's description of the life of the family of a modern Arab chief. "A sheik," says he, "who has the command of five hundred horse, does not disdain to saddle and bridle his own, nor to give him barley and chopped straw. In his tent his wife makes the coffee, kneads the dough, and superintends the dressing of his victuals. His daughters and kinswomen wash the linen, and go with pitchers in their hands and veils over their faces to draw water from fountains."\* In the earlier days of Rome, it is said, it was not uncommon for senators to live in the country cultivating their land with their own hands; while consuls and dictators were often taken from the plow. "In those happy days," says Pliny, "the earth, glorious in seeing herself cultivated by the hands of triumphant victors, seemed to make new efforts and to put forth her fruits in greater abundance."

But if at certain times, and for longer or shorter periods, there have been communities in which the nobility of labor was proclaimed by the examples of the great and influential—communities in which the toil necessary to human sustenance was shared by all, and general comfort went hand in hand with general industry—such, unhappily, has not been the ordinary experience of the human race, and such, certainly, was not the usual condition of affairs among those nations of antiquity whose histories have come down to our day.

#### LABOR IN EGYPT.

Among the earliest of these nations, that which has the chief claim upon our attention is Egypt. The remains of her colossal architecture and sculpture which have endured to our day in the time-defying pyramids, the ruins of magnificent temples, the obelisks, colossi, and sphinxes, the labyrinth, the catacombs, and the splendid tombs of the kings, reveal to us a people of remarkable genius and skill, and invest them with a strange and fascinating interest. Far beyond the classic days of Rome and Greece there rises into view a second and remoter antiquity in which this Egyptian civilization stands, like one of the pyramids, outlined in imposing majesty upon the very horizon of time.

\* Travels in Egypt and Syria.

According to Manetho, the Egyptian historian, who wrote in the time of Ptolemy Philadelphus, no less than thirty dynasties had ruled in Egypt previous to the overthrow of her last native king. Assuming all these dynasties to have been successive, the duration of the Egyptian monarchy up to that time must have exceeded five thousand years; but accepting the received opinion that the first seventeen of them consisted of several contemporary lines, each embracing one or more dynasties, and adopting the order of contemporaneousness established by Lane, the history of Egypt stretches back to the year 2717 B. C. It should be said here that Bünsen and Lepsius, both high authorities, while accepting the theory of the contemporaneousness of the earlier dynasties, assign to Menes, the first king mentioned in Manetho's lists, a date much earlier than the one just given. The preponderance of evidence, however, appears to favor the latter, and accepting that as approximately correct, the time which elapsed between the accession of Menes and the overthrow of Nectanabo by Artaxerxes Ochus, about 350 B. C., was no less than 2,367 years. If to these thirty dynasties be added that of the Ptolemies, which, although of foreign origin, ruled in an Egyptian capital and identified itself more or less closely with Egyptian interests, the history of Egypt as a nation will extend from 2717 to 31 B. C., a period of 2,686 years. But the origin of Egyptian civilization must be assigned to a period even more remote than that of Menes, for in the time of the fourth dynasty, which began about 2440 and ended about 2200 B. C., there were constructed monuments which could only have been the work of a people who had enjoyed the advantage of several centuries of progress.\*

The early advance of Egypt in civilization, as well as her great material prosperity, had its physical basis in the rare fertility of the valley of the Nile and the remarkable security of its situation. The former, by attracting the people to a regular agricultural life, induced fixity of residence and the desire for those comforts and embellishments with which men naturally seek to surround themselves when established in permanent homes. The latter, by protecting them from the predatory incursions of nomad tribes, enabled them to accumulate in peace and safety the means by which this desire might be gratified. Hence gradually arose a demand for mechanical and artistic pursuits to supply agricultural implements, dwellings, household furniture and utensils, improved apparel, and ultimately great public buildings and works of art. Hence, also, arose the desire for protection in the pursuit of a regular industry and in the enjoyment of its products, creating a demand for government and social organization, and rendering it possible to unite a large body of people into a single state. Thus were developed in Egypt the needful conditions for an advancing civilization long before the peoples around them had abandoned the rude and stereotyped usages of an unprogressive pastoral life.

The security of situation above referred to was due to the singular isolation of the country; for the valley of the Lower Nile, which owed its fertility solely to its annual overflow by the great river, and which

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\*During the joint reign of two kings of this dynasty was erected the great pyramid of Aboo-seer, commonly known as the pyramid of Cheops; and many other works of the same period attest at once the wealth of the Egyptians and the skill in art and industry to which they had attained even at that early day. These two kings were the two Sôphises of Manetho, (the Shufu or Khufu and Num-Shufu or Num-Khufu of the monuments,) of whom the former is believed to be identical with the Cheops of the Greeks, after whom the pyramid has been popularly named. The date, 2352 B. C., is believed, upon astronomical evidence, to have fallen within the period during which these two kings reigned.

constituted the "land of Egypt," was situated in the midst of a desert region of vast extent, affording little subsistence for predatory and hostile tribes, and interposing a formidable barrier of trackless sand between the Egyptians and the nearest habitable tracts on which any considerable population could have found a home. Thus carefully did nature guard the tender infancy of Egyptian civilization; and even in later times, when assailed by rival nations, grown powerful through the arts which they probably owed in great measure to herself, Egypt often found in her surrounding deserts most potent allies, and more than one great army was reduced to impotence through hunger, thirst, and weariness endured in attempting to cross them. In relation to the industry and wealth of the Egyptians, no circumstance connected with their natural situation was equal in importance to the annual inundation, on which depended the productiveness of the entire area of their cultivable land. In consequence of this regular overflow of the fertilizing waters, there was usually "corn in Egypt" when surrounding nations were consumed with famine. Yet even there the agriculturist was by no means wholly exempt from the vicissitudes which beset his calling elsewhere; for a variation of a few feet either way in the rise of the river was attended with serious loss. In modern times a rise of less than eighteen or twenty feet at the nilometer of El Rodah, near Cairo, is considered scanty, leaving a considerable area of land outside the limits of the inundation. A rise of less than twenty-four feet is not entirely sufficient, while a rise of more than twenty-seven feet ranks as a destructive flood. In the great French work, the *Description of Egypt*, there is a table of sixty-six inundations, taken from the official records, and comprehending those of the years 1737 to 1800 inclusive, of which eleven were very high, thirty good, sixteen feeble, and nine insufficient. Similar variations must have occurred in ancient times, and occasionally, though it would seem very rarely, the rise was so scanty as to produce famine. That which occurred in the time of Joseph (probably about 1876 B. C.) has been made familiar by the Scripture narrative; another appears to have occurred a century or two earlier, under one of the sovereigns of the twelfth dynasty; and one of seven years' duration is recorded as having happened in the reign of El Mustansir, about the middle of the eleventh century of the Christian era. So great was the distress at this time in certain portions of Egypt that cannibalism was resorted to, and organized bands kidnapped unwary passengers in the streets of El Káhíreh, (Cairo.) At this period, however, the evils resulting from the failure of the inundation were aggravated by those of war.

In the prosperous times of ancient Egypt art and industry had done much to extend the benefits of the inundation. The great canal (or, rather, continuous series of canals) now known as the Bahr-Yoosuf, (River of Joseph,) which runs parallel with the Nile from a little below Cairo to Farshoot, a distance of about three hundred and fifty miles, is believed to have been first constructed under the Pharaohs, and it may even be full as old as the Arab tradition attributing it to the patriarch Joseph would indicate. In a passage heretofore cited Herodotus attributes to Sesostris the construction of a large number of canals by means of the involuntary labors of his captives, and remarks that, in consequence of these works, "Egypt, which was before conveniently adapted to those who traveled on horseback or in carriages, became unfit for both. The canals," says he, "occur so frequently and in so many winding directions that to journey on horseback is disagreeable; in carriages impossible. The prince, however, was influenced by a patriotic

motive: before his time those who inhabited the inland parts of the country, at a distance from the river, on the ebbing of the Nile suffered great distress from the want of water, of which they had none but from muddy wells." The Sesostris of the Greek and Roman writers is supposed to have been Rameses II, whose reign of sixty-six years appears to have occupied the latter part of the fourteenth and the earlier part of the thirteenth centuries, B. C.; but it is believed that they also confounded under the same name two kings of the twelfth dynasty who ruled about seven centuries earlier, namely, Sesertesen I and Sesertesen III, the latter of whom is called Sesostris by Manetho. It is not unlikely that one of these kings, rather than Rameses II, was the author of the system of canals referred to by Herodotus, especially as the celebrated Lake Mœris, one of the greatest of the works connected with the system of irrigation, is satisfactorily shown to have been excavated under Amenemha III, who reigned in the twentieth century before Christ, and is believed to be identical with the Mœris of the Greek historians.\*

The importance attached to agriculture by the ancient Egyptians is sufficiently indicated by the construction of such enormous works as those just referred to, for the purpose of facilitating its processes and increasing its products. As early as the days of Abraham their country appears to have been well known to surrounding nations for the regularity and abundance of its food-supply; for when pressed by famine in Canaan the patriarch is represented (Genesis xii) as going to Egypt in quest of subsistence for himself, his numerous dependents, and his flocks and herds. According to the Hebrew version of the Old Testament Scriptures his was about 1920 B. C., and, according to the Septuagint, 2551 B. C. About two centuries later, Jacob, with his household, and probably from one thousand to twelve hundred retainers, resorted to the same source of supplies; and it appears from Genesis xxvi, 2, that Isaac, under stress of famine, was once upon the point of going thither, but was directed elsewhere. Under the despotic rule of the Persians, which commenced about 525 B. C., and, with some interruptions, continued about two centuries, agriculture, like all the other interests of the country, was seriously depressed; but it revived again under the Ptolemies, and, under the Romans, Egypt was regarded as the granary of the empire.

The various operations of agriculture are represented with considerable minuteness in the sculptures and paintings on the walls of tombs, on some of which, dating as far back as the fourth and fifth dynasties, appear the plow and various other implements employed in farming. The first essential in connection with agriculture was to secure to the land the full benefits of the inundation, and great pains was taken to accomplish this end by means of ditches and skillful mechanical appliances, as well as by dikes and dams to retain the water upon the land.

The contrivances for irrigating lands lying above the level of the inundation appear in early times to have been confined to buckets carried by hand, and a simple machine constructed on the principle of the well-sweep, and known in modern Egypt as the shádoof. At a later day a contrivance somewhat similar to the modern chain-pump, though on a larger scale, appears to have been used for the same purpose. After the inundation had subsided the land was plowed, or broken up by the hoe, and sown; goats, and, according to Herodotus, swine, being sometimes driven over the field for the purpose of treading in the seed. The principal

\* The prænomen of this king, Ra-en-ma, or Ma-en-ra, is probably the name which the Greeks converted into Mœris.

crop appears to have been wheat,\* which, when ripe, was usually cut near the top of the stalk, the ears being carried in nets or baskets, by men or asses, to the thrashing-floor, where the grain was trodden out by oxen or cows. Sometimes, however, the wheat was bound in sheaves. These several processes of plowing, sowing, harvesting, and thrashing in reference to wheat and other kinds of grain, are portrayed in the tombs, in which are also found curious representations of gardens and vineyards. The former were often extensive, and contained tanks for fish, and for the purpose of irrigation. Those represented are doubtless the gardens of the rich, who alone could have had their tombs so elaborately decorated. The proprietors of land are represented as constantly supervising the labor of their workmen, and paying the closest attention to the cultivation of their estates; and Diodorus informs us that agriculture had been carried to a higher degree of perfection by the Egyptians than by any other people. The rare productiveness of their country is demonstrated by the large population it supported, which, according to the historian just named, amounted, in his day, about the commencement of the Christian era, to three millions, and had once been as high as seven millions. There is no doubt that at the time of Diodorus the population of Egypt had, by war and misgovernment, been reduced very far below its ancient limit; and, if we assume that limit to have been the higher number mentioned above, the number of inhabitants to each square mile of cultivable land averaged upward of 650, a population considerably more dense than that of any country in modern Europe.†

The skill of the Egyptians in the mechanical arts is strikingly attested by the remains of their magnificent temples and other specimens of their architecture. In connection with the monumental remains of the fourth dynasty (2440 to 2200 B. C.) are found opaque glass and glazed pottery, or porcelain, the potter's wheel, and the kiln, together with evidences of a general knowledge of metallurgy.‡

Under the fifth dynasty (which commenced simultaneously with the fourth) appear the saw, adze, chisel, lever, balance, and press, and the blow-pipe, used as a bellows. The sculptures exhibit a great variety of

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\* It is believed by some writers that the *zea* mentioned by Herodotus as the principal grain of the Egyptians, although usually translated *spelt*, was really a species of bearded wheat.

† According to Colonel Jacotin, one of the best authorities on the subject, the space which the Nile does or can water and fertilize, north of the first cataract, including its own bed, is only 9,582.3936 geographical square miles, or about 12,457 English square miles. The space actually under cultivation was found by M. Estève, according to Colonel Jacotin, to be 5,469.8688 geographical square miles; but the latter gentleman calculates that in ancient times 2,735.0784 more may have been cultivable, making a total of 8,205.9472 geographical, or about 10,666 English square miles, and it is upon this area that the density of population is calculated above.

From a list of all the towns and villages of Egypt, with the extent of cultivated land belonging to each, made about A. D. 1375, Mr. E. W. Lane, in his work on the Modern Egyptians, has calculated the aggregate amount of cultivated land at that time at 5,500 geographical square miles, or about 7,150 English square miles.

‡ The following paragraph bearing on this subject is copied from a recent article in an English scientific journal, contributed by Mr. Charles Vincent:

"In the sepulchers of Thebes may be found delineations of butchers sharpening their knives on round bars of iron attached to their aprons. The blades of the knives are painted blue, which fact proves that they were of steel, for in the tomb of Rameses III this color is used to indicate steel, bronze being represented by red. An English gentleman has recently discovered near the wells of Moses, by the Red Sea, the remains of iron-works so vast that they must have employed thousands of workmen. Near the works are to be found the ruins of a temple and a barrack for the soldiers protecting or keeping in order the workmen. The works are supposed to be at least 3,000 years old."



musical instruments, elegant vases, and articles of household furniture; vessels of metal, alabaster, and other materials; arms and domestic implements, the production of which gives evidence of equal taste and skill; while in weaving, and in the various processes of the manufacture of linen, the Egyptians are said to have excelled.

Diodorus Siculus divided the ancient Egyptians into three classes, as follows: 1. Persons of rank, and priests, who shared between them the chief honors and powers of the state. 2. Soldiers, who were also husbandmen. 3. Artisans and laborers. Herodotus enumerates seven classes, namely, priests, soldiers, herdsmen (of sheep and cattle,) swine-herds, tradesmen, interpreters, and pilots. Plato mentions hunters as a separate class, and some have added fishermen and boatmen. These various occupations are but subdivisions of the third class mentioned by Diodorus, and are comprehended under the general terms "artisans" and "laborers." The impression has commonly prevailed that these classes were castes like those of India, separated from each other, from one generation to another, by a barrier which law and custom forbade any of their members to cross; but the testimony of the monuments, as first pointed out by M. Ampère, shows that this opinion was incorrect. Members of the priestly and military classes not only intermarried, but in some instances performed indifferently the functions of the priest or soldier. That intermarriages between members of the privileged classes and the common people were extremely rare, may naturally be supposed, for this is the case in all countries where privileged classes exist; but there can be no doubt that between most of the different classes of working-people intermarriages were common. Indeed, this is implied in the statement of Herodotus (ii, 47) in reference to swine-herds, whose case he mentions as if it were entirely exceptional. Nor does he say that even they were forbidden to intermarry with members of other classes, but that marriage with them was "studiously avoided," and that they were thus "reduced to the necessity of intermarrying among those of their own profession." This prejudice arose from their connection with an animal regarded as unclean, and for the same reason they were excluded from the temples. But although there were among the Egyptians no castes, properly so called, it was probably the common practice in most occupations for the son to be brought up to the employment pursued by his father, and it also appears that different occupations were held in different degrees of esteem. The swine-herds, as already indicated, stood lowest in the social scale. The herdsmen of sheep and cattle were regarded with dislike, if not with contempt, a fact which Joseph adroitly turned to the advantage of his kinsmen, by using it as a means of securing for them a residence by themselves in the land of Goshen, (Genesis xlii, 33 and 34.)\*

\* The antipathy to persons engaged in pastoral pursuits, implied in the statement of Joseph, that every shepherd was "an abomination unto the Egyptians," probably grew out of the invasion of Egypt by a pastoral people, and the establishment therein of the "shepherd-kings." Of these, according to Africanus's version of Manetho, there were three dynasties, the fifteenth, sixteenth, and seventeenth, whose rule commenced about 2080 B. C., and lasted somewhat more than five hundred years, during which period, however, there were some contemporary dynasties of native kings. According to Manetho, the first of these three foreign dynasties was Phœnician, while the other two are believed to have included Arabs and Assyrians; and there is reason to believe that between some of those and the kings of the fifteenth dynasty there existed a bitter hostility. The Pharaoh who elevated Joseph to the post of prime minister is believed to have been Assis (or Assa) of the fifteenth dynasty, and being himself one of the shepherd-kings, he naturally would not share, though from policy he might respect, the prejudices of the Egyptians. The later Pharaoh, "who knew not Joseph," and oppressed the Israelites, is supposed to have been of Assyrian origin, and was probably of the sixteenth dynasty.

Agricultural laborers are said to have been a despised class, and boatmen were held in low esteem, while even mechanics were regarded with contempt by the military class, who disdained to follow mechanical pursuits, considering them mean and unmanly.\*

The divisions of Egyptian society above mentioned appear to have no relation to the distinction between freemen and slaves. From a remark of Herodotus, that "the Egyptians did not confine the exercise of trades to slaves, as the Spartans did," it may be inferred that persons of this class were employed, to some extent, in the various common occupations, but not exclusively in any. It is probable, however, that slaves were chiefly held by members of the privileged classes, who would be most likely to have the means of purchasing them. It will be recollected that it was a member of the upper class, Potiphar, a captain of the king's guard, who purchased Joseph from the Midianite merchants who carried him into Egypt. It may be remarked here that this transaction affords incidental evidence that at the time when it occurred (about 1800 B. C.) Egypt was known to traders as a market in which slaves were in regular demand. In successful military expeditions immense numbers of captives were often brought back and reduced to slavery; and there are indications in the sculptures of Thebes that slaves sometimes formed a part of the annual tribute paid by conquered nations to the Egyptian kings. The slaves taken in war, and probably also those received as tribute, were sometimes employed in large numbers on the public works; but it is likely that a considerable number of the former class were distributed among the soldiers and military commanders, and that a portion of them were also assigned to the priests, while others were sold under the authority of the government to any private individuals who chose to purchase them. The slaves acquired in these various ways were, of course, of many nationalities, and the representations of them on Egyptian bas-reliefs show that persons of the negro type were included among them. Besides the above mentioned there was another class of involuntary laborers, composed of criminals, a term which probably embraced many who by political or other offenses had incurred the displeasure of the monarch or of the local authorities. The origin of the custom of employing this class upon public works is attributed to Sabacus, the Ethiopian, who invaded Egypt about the middle of the eighth century before Christ. "While he retained his authority," says Herodotus, "he made it a rule not to punish any crime with death, but, according to the magnitude of the offense, he condemned the criminal to raise the ground near the place to which he belonged, by which means the situation of the different cities became more and more elevated." The employment of captives by Sesostris in digging the canals has already been referred to. The labor exacted by the taskmasters of the government in the execution of public works appears usually to have been very severe, the laborers being treated as mere beasts of burden. Those condemned to work in the mines are said to have been driven with blows to continue their labors until they sometimes fell lifeless from exhaustion. The practice of inflicting corporal punishment to hasten the performance of work appears

\* Herodotus (ii, 167) states that he had observed the same custom in various parts of Thrace, Scythia, Persia, and Lydia. "It seems, indeed," says he, "to be an established prejudice, even among nations the least refined, to consider mechanics and their descendants in the lowest rank of citizens, and to esteem those as the most noble who were of no profession, annexing the highest degree of honor to the exercise of arms. This idea prevails throughout Greece, but more particularly at Lacedaemonia; the Corinthians, however, do not hold mechanics in disesteem."

to have prevailed under the Pharaohs, for we are told (Exodus v, 14) that "the officers of the children of Israel which Pharaoh's taskmasters had set over them were beaten, and demanded, 'Wherefore have ye not fulfilled your task in making brick, both yesterday and to-day, as heretofore?'" It is not difficult to conceive the hardships to which laborers were sometimes subjected by taskmasters eager to win the favor of a monarch whose vanity and ambition demanded the early completion of a temple, a pyramid, or some other great work, by which he sought to transmit his fame to posterity.

The treatment of slaves by private owners would of course vary according to circumstances and the disposition of the masters. In occasional instances, when recommended by marked capacity and fidelity, they appear to have been assigned to positions of trust and responsibility, as in the case of Joseph, of whom we are told that Potiphar "made him overseer over his house, and all that he had put he into his hand." But such cases, of course, throw no light upon the ordinary treatment of the mass of persons of this class. In agriculture a part of their employment consisted in turning the wheels by means of which water was pumped from the river or canals for the purpose of irrigating the soil; in the mechanical occupations, and in commerce, they doubtless performed much of the heavy and disagreeable work, and in the household, female slaves ground corn in the hand-mills then in use, washed the feet of guests, and performed various menial offices. But in regard to their general condition and treatment little is definitely known. Not the slaves alone, but the entire mass of the laboring people, appear to have been entirely devoid of political power, and to have had scarcely an idea of such a thing as the rights of citizenship. Their demeanor in the presence of their superiors in rank was marked by great humility; and their habit of prostrating themselves before those in authority affords presumptive evidence that the latter possessed, and occasionally exercised, the power of inflicting severe punishment upon the objects of their displeasure. Yet there is reason to believe that the laws of Egypt were characterized by more humanity and a greater regard for justice than those of most other nations of ancient times, not excepting some of the greatest of those states which flourished at a period much later than that to which the larger and more prosperous portion of Egyptian history must be assigned.\*

Imprisonment for debt, which has disgraced the codes even of modern nations, was not practiced among the Egyptians; while the murder of a slave, like that of a freeman, was punished with death. In these and other particulars the laws appear to have been framed with more regard to the rights of the poor and humble than might have been expected in a country where this class had so little influence in public affairs. It would appear, however, that at one period, at least, idleness or vagrancy was punished with great severity; for Herodotus mentions a law instituted by Amasis, which required every Egyptian once a year to explain to the chief magistrate of his district the means by which he obtained his subsistence, and states that a failure to comply with this ordinance, or to prove that a livelihood was procured by honest means, was a capital offense.

The political subjection of this class appears to have been founded in their gross superstition, or perhaps it would be more accurate to say

\*An indication of the efficiency with which the laws were administered may be seen in the fact, attested by sculptures of a very ancient date, that it was the common practice of persons of all classes to go abroad unarmed.

that it was founded in the general ignorance out of which this superstition grew. Their belief in a multitude of divinities, of whose will the priests were supposed to be the authorized interpreters, induced them to accord to this class an authority which, at one period of their history, appears to have been paramount in some respects to that of the king himself, and this authority was probably the original basis of the monarch's power. It is quite possible that on this account the government was milder than if it had been founded purely on military power. It is evident, however, that the military forces of the nation, called into existence, perhaps, to repel invasion or to prosecute foreign wars, soon became one of the main supports of the monarchy; and the fidelity of these forces to the government, as well as their zeal in the defense of the country, was stimulated by especial privileges, of which the most substantial was the possession of allotments of land, exempt from all rent or taxation, which, together with the duty of military service, appears to have descended from father to son through successive generations.\*

In its bearing on the economical condition of the working-classes, the subject of land-tenure, incidentally referred to above, is sufficiently important to require a passing notice. In Genesis xlvii may be found the well-known scriptural account of Joseph's purchase of the lands of the Egyptians for Pharaoh at the time of the great famine, in consequence of which they had previously exhausted their money and their cattle in purchasing from the king the food which he had gathered into the royal store-houses during the seven years of plenty. In permitting the people to continue the occupancy and cultivation of their land, Joseph exacted for Pharaoh a fifth part of the produce, and in the twenty-sixth verse we are told that he "made it a law over the land of Egypt unto this day that Pharaoh should have the fifth part." It appears, however, that the land of the priests was not included in this purchase, for, according to verse 22, "the priests had a portion of food assigned them of Pharaoh, and did eat their portion which Pharaoh gave them; wherefore they sold not their lands." As near as can be determined this event occurred about 1865 B. C.†

At a later period the land is found divided between the king, the priests, and the soldiers. According to Herodotus the priests and soldiers had each a tract of land, which, expressed in our measurement, would be a little over six acres, free from all taxation. This was probably the quantity held by the common soldiers and the lower order of priests, for it seems likely that both in the military and priestly professions the quantity of land held varied to some extent with the rank of the holder. Sesostris (which name in this instance probably applies to Rameses II) is represented as having made a regular distribution of the lands of Egypt, assigning "to each Egyptian a square piece of ground," (Herodotus ii, 109,) and deriving his revenues "from the rent which every individual annually paid him." "Whoever was a sufferer by the inundation of the Nile was permitted to make the king acquainted with his loss;" and "certain officers were appointed to in-

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\* It appears that Psammetichus, who came to the throne about 664 B. C., after overthrowing a dodecharchy of which he had been a member, commenced the practice of employing foreign mercenaries. The native Egyptian troops, being agriculturists in peace as well as soldiers in war, had had a strong interest in the safety of the country, whose independence did not long survive the general substitution of mercenary foreigners for the native soldiers.

† It will be understood that in respect to the dates of most events of the earlier portion of Egyptian history, there is great diversity of opinion among chronologists.

quire into the particulars of the injury, that no man might be taxed beyond his ability." This statement probably refers only to that portion of the land which belonged to the king. The privileged tenure of the priests certainly dated much farther back than the time of Rameses II, and the same is probably true in regard to that of the soldiers; and both of these classes were in possession of their lands, as above stated, at a time long after the reign of that monarch. It is quite probable, however, that both before and after that period there were changes of greater or less extent in the distribution of land, both among individuals and classes. Such changes have been common in the history of the world, and would be peculiarly favored in Egypt, by the fact that the whole country had to be resurveyed after each annual inundation, in order to re-establish the boundaries between the different tracts, an operation which would bring the subject of land-tenure under the constant attention of the public, and make it a matter of regular supervision on the part of the authorities. Of the importance attached to the division of the soil in Egypt, an indication is found in the fact that the topography of the country formed the theme of one of the sacred books; and it is in the care of the Egyptians in securing exact surveys that the science of geometry is supposed to have had its origin. If Herodotus may be relied on as to the amount of land assigned to the priests and soldiers, and as to the number of the latter, his statements, in conjunction with other data, will afford the basis for an approximate calculation as to the aggregate amount of land held by each class. According to this historian the number of soldiers, when the population of the military nomes was at its maximum, was 410,000; and, taking six acres as the amount assigned to each, the aggregate amount of land held by the military class would be 3,843 $\frac{1}{2}$  square miles, or a little over thirty-six per cent. of the entire cultivable area (10,666 square miles) as estimated by Colonel Jacotin. But Diodorus (i, 73) states that the priests held the largest share in the threefold division of the soil; and so great was the number of persons of this class, that at some points in Egyptian history this may well have been true. But, taking as the basis of calculation the ordinary number of priests and soldiers, instead of the maximum number, it seems probable that the division of the land between these two classes and the king was originally such as to give exactly one-third of the total area to each of the three parties, an arrangement which probably remained in force, without any very material variation, for several centuries.\*

It is worthy of note in this connection that the maximum number of soldiers, as given by Herodotus, (410,000,) would make the military class, including women, children, and old men, about one-third of the maximum population as given by Diodorus, (7,000,000;) for this supposition gives one soldier to every 5 $\frac{1}{2}$  of the military population, which is a reasonable estimate. The maintaining of so large an army would scarcely have been possible, but for the fact that the soldiers, in times of peace, were husbandmen, and so were, in a great measure, self-supporting.

\* Herodotus (ii, 141) states that Sethes, a priest of Vulcan, on attaining the throne, treated the military with great contempt and deprived them of their *arura*, or fields, which, by way of reward, his predecessors had given to each soldier. Chronologically this prince appears to coincide with the Tirhakah of Scripture, whose reign commenced about 723 B. C., but the character ascribed to him hardly corresponds with that of the latter monarch. The statement of Herodotus is chiefly valuable as showing the existence in Egypt of some record or tradition of such an interference on the part of the king with the land of the military class. After the employment of mercenaries became common, the land of the Egyptian soldiers was probably appropriated gradually by the kings, and their descendants put upon the same footing as other cultivators.

The statement that Sesostris, (or Rameses II,) in his distribution of the land, "assigned to each Egyptian a square piece of ground," can hardly be taken as literally true in any case, since a considerable portion of the population must have been engaged in mechanical pursuits; but it seems clear that the soil in the main was divided into small holdings and that *la petite culture* was the prevailing form of the far-famed agriculture of Egypt. The sculptures of a remoter period, however, for example those on the walls of tombs of the fourth dynasty, indicate the conduct of agricultural operations on a scale implying larger proprietorships; and, indeed, it is not improbable that during her long history Egypt passed through some phase of land-tenure bearing more or less resemblance to that which prevailed under the feudal system in Europe. But it is not to be supposed that even under the system of small holdings subsequently established each holder personally cultivated his own land. In this labor slaves were doubtless employed to a large extent, especially by the soldiers and priests; while many of the latter probably rented their land to others, and subsisted, in whole or in part, upon the revenues derived from it in this way.\*

The king's portion of the land was probably rented, for the most part, in tracts not larger, and possibly even smaller, than those allotted to the priests and soldiers. The amount of rent exacted undoubtedly varied with the condition of the country, the demands upon the royal exchequer, and the personal character of the monarch. Had the annual charge never exceeded one-fifth of the produce, (at which it is said to have been fixed by Joseph,) the condition of the tenants would have been more favorable than that of tenants in most countries where competition rents are paid to private land-owners; but many of the kings, in order to carry out their own ambitious schemes, extended their exactions to such a degree as barely to leave the cultivators the meanest subsistence.

If the system of land-tenure was such as has been indicated above, there could scarcely have been in Egypt a landed aristocracy. Indeed, there was no hereditary aristocracy whatever, in the ordinary sense of that term. The priests and soldiers were privileged classes, but the majority of these must have been persons of very moderate means, as is implied in the extent of their allotments of land. In both of these classes there were, doubtless, many gradations of rank, to the highest of which, as well as to high government offices, were annexed very large incomes. The power of an Egyptian king to reward a favorite official is illustrated by the honors and emoluments showered upon Joseph. In later times, especially under the Ptolemies, commerce must have been the source of many large private fortunes. But in all periods there appear to have been great inequalities among the people in respect to wealth and social position. The great affluence of a portion of the community, probably a small portion, is indicated by the representations of their furniture, household-utensils, and dress, and by the great quantity of jewels and other objects of embellishment and luxury in use among them, as well as by the magnificent tombs which they prepared for the reception of their remains; while the splendor of the palaces of Thebes, still evident even amid their ruins, sufficiently indicates the magnificence and pomp which surrounded the monarch. The indolence and luxury of the few had their natural counterpart in the arduous toil

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\* The produce of their land was certainly not their only source of revenue. Herodotus (ii, 37) says that they were not obliged to consume any part of their domestic property, each of them having "a moiety of the sacred viands, ready dressed, assigned him, besides a large and daily allowance of beef and geese."

and poverty of the many. Such was the fertility of the soil, however, that in favorable periods even the poor probably enjoyed a certain rude abundance of coarse food. Of this an incidental evidence is found in the murmurings of the Israelites in the wilderness, for, notwithstanding that the Egyptians had "made their lives bitter with hard bondage in mortar and brick and in all manner of service in the field," (Exodus i, 14,) they sighed for the days when they "sat by the flesh-pots and did eat bread to the full." (Exodus xvi, 3.) But during the period when the population of the country was at or near its maximum, every deficient or excessive inundation must have entailed a deficiency in the food-supply, and the poorer classes must at times have suffered very serious privations from this cause. As to their clothing, it appears to have been of the simplest description, usually consisting of a single garment, a sort of tunic, with a girdle, and the men, especially when engaged in heavy work, frequently went naked. Their dwellings were alight and temporary structures, in marked contrast with the temples and tombs, which seemed to have been built to endure for eternity. The climate, however, was so mild that scant clothing and poor dwellings rarely involved any serious physical discomfort. In respect to education, the Egyptian working-classes appear to have had no advantages. With the great majority of them life was a mere physical existence, more or less painful, and rarely cheered with any hope of amelioration in their condition.

Among the causes of their poverty, one of the most obvious was the support of an immense body of non-producers, particularly the priests, who were more numerous, enjoyed ampler revenues, and exercised greater social and political power in Egypt than anywhere else in the ancient world. Another cause equally conspicuous was the exercise of the arbitrary and irresponsible power of the monarchs in the erection of vast and costly structures, such as temples and pyramids, thus forcibly diverting the labor of the people into unnatural channels, wherein it contributed nothing to their physical comfort, and in no adequate degree promoted even their artistic and esthetic development.

From the account which Herodotus gives of the construction of the great pyramid (which was doubtless the account current among the Egyptians in his day) it would appear that the king arbitrarily impressed the people into his service "Some he compelled," says the historian, "to hew stones in the quarries of the Arabian mountains, and drag them to the banks of the Nile; others were appointed to receive them in vessels, and transport them to a mountain of Libya. For this service a hundred thousand men were employed, who were relieved every three months. Ten years were consumed in the hard labor of forming the road through which these stones were to be drawn. \* \* \* \* The pyramid itself was a work of twenty years. Upon the outside were inscribed in Egyptian characters the various sums of money expended in the progress of the work for the radishes, onions, and garlic consumed by the artificers. This, as I well remember, my interpreter informed me, amounted to no less than one thousand six hundred talents, [in round numbers about \$1,600,000.] If this be true, how much more must it necessarily have cost for iron tools, food, and clothes for the workmen, particularly when we consider the length of time they were employed in the building itself, adding what was spent in the hewing and conveyance of the stones, and the construction of the subterraneous apartments." Herodotus adds that for the memory of this monarch and his successor (who also built a pyramid) the Egyptians had so extreme an aversion that they were "not very willing to mention their names."

But it was not alone in the erection of such colossal structures as the pyramids that vast amounts of labor were expended. One hundred and twenty thousand men are said to have been employed in hewing the obelisks of Thebes; and Herodotus mentions an edifice formed out of a single immense stone, which appears to have been used as the portico of a temple, the transportation of which from Elephantine to Sais employed two thousand men for three years. Yet this was only one out of many similar works executed by a single king; and there was scarcely a monarch of any note who did not leave numerous monuments of his ambition to perpetuate his fame, or his solicitude to obtain the favor of the gods by erecting costly temples for their worship.

Thus the industrial servitude of the people resulted in a great measure from that absolute political subjection which enabled a monarch to tax them at his own pleasure, or to command their labor in the service of the most grotesque ambition, the most reckless extravagance, or the wildest caprice. Scarcely anything in history could give one a more exalted conception of the economic value of political liberty to the working-classes of modern times than is conveyed by the spectacle of the hardships to which the working-people of Egypt were subjected in consequence of the irresponsible power possessed by their rulers.

#### LABOR AMONG THE JEWS.

Adjacent to the Egyptians, geographically, and connected with them by strong historical links, were the Jews, or Israelites, who, after their exodus from Egypt, (which probably took place about 1652 B. C.,\*) settled in the southern portion of the belt of fertile country which bordered the eastern end of the Mediterranean Sea. Their ancient writings, embraced in the books of the Old Testament, in Josephus, and in the Talmud, and other traditional records, not only throw a comparatively full light upon their own life and history, but incidentally afford many important glimpses at those of the nations by which they were surrounded. In their origin the Israelites were a pastoral people; but during their residence in Egypt many of them must have acquired considerable mechanical and artistic skill, as is indicated in the fact that they built for Pharaoh treasure-cities, (Exodus, i, 11,) and by the works they executed during the journey through the wilderness in the construction of the tabernacle and its elaborate furniture, including the ark, the golden candlesticks, the cherubim of beaten gold, the "curtains of fine-twined linen, and blue and purple and scarlet, the vessels of gold and silver, and the ephod, inlaid with precious stones." During the earlier centuries of their residence in Canaan their frequent wars with the former inhabitants of the country and with the neighboring nations must have been highly unfavorable to their progress in the arts and in mechanical industry; and, moreover, the Philistines, under whose power the Israelites repeatedly fell, appear to have pursued so jealous a policy toward them that in the early portion of the reign of Saul "there was no smith found through all the land of Israel, for the Philistines said, 'Lest the Hebrews make them swords or spears;' but all the Israelites went down to the Philistines to sharpen every man his share, and his coulter, and his ax, and his mattock." (1 Samuel xiii, 19 and 20.) The period of power and independence enjoyed under Saul and under David were favorable to their progress in the industrial arts, and they also profited by their intercourse with the Phœnicians, whose great

\* On this subject there is considerable difference of opinion among chronologists.



cities, Tyre and Sidon, were already flourishing places. In the building of the Temple at Jerusalem Solomon appears to have availed himself extensively of the skill of these neighbors, whose workmen were associated with those of the Hebrews\* in dressing stones for the foundation of that structure, hewing timber in the mountains of Lebanon, and probably in many other portions of the work.

In his message to Hiram, King of Tyre, asking assistance in this work, Solomon says, "Send me now, therefore, a man cunning to work in gold, and in silver, and in brass, and in iron, and in purple and crimson, and blue, and that can skill to grave with the cunning men that are with me in Judah and in Jerusalem, whom David, my father, did provide." (2 Chronicles, ii, 7.) Hiram complies with this request by sending "a cunning man endued with understanding," whose mother was "of the daughters of Dan, and his father a man of Tyre." Among the works in metal executed by this artificer† was an immense vessel of brass, of which the following account is given in 1 Kings, vii, 23 to 26: "And he made a molten sea, ten cubits from the one brim to the other; it was round all about, and its height was five cubits,‡ and a line of thirty cubits did compass it round about. And under the brim of it round about there were knobs compassing it, *ten* in a cubit, compassing the sea round about; the knobs were cast in two rows when it was cast. It stood upon twelve oxen (three looking toward each of the cardinal points.) \* \* \* And it was a hand-breadth thick, and the brim thereof was wrought like the brim of a cup with flowers of lilies. It contained two thousand baths.§ This and numerous other vessels enumerated in the same chapter, and more or less minutely described, are said to have been "of bright brass," and to have been cast in the plain of Jordan, "in the clay ground between Succoth and Zarthan." Further on are enumerated candlesticks, snuffers, lamps, basins, spoons, censers, and various other articles "of pure gold" which were made as a portion of the furniture of the temple. The making of the various vessels and other articles, some of them cast and others wrought, indicates considerable skill in the various processes of metallurgy; but, as this work was directed by an artificer brought from Tyre expressly for that purpose, it would appear that the knowledge of this art possessed by the Israelites at the time in question was quite limited. It may reasonably be presumed, however, that they profited by the lessons received in the execution of these and other works connected with the temple, and that the erection of this building really inaugurated a new era in the development of the mechanic arts among them.

One thing especially noticeable in connection with the building of the Temple is the manner in which the labor was employed. In the seventeenth and eighteenth verses of the second chapter of second Chronicles, we are told that "Solomon numbered all the strangers that were in the land of Israel, \* \* \* and they were found an hundred and fifty thousand and three thousand and six hundred;" and that of these "he set three score and ten thousand to be bearers of burdens, and four score thousand

\* 1 Kings, v, 6, 13, 14, and 18.

† In 1 Kings, vii, 13 and 14, the artificer who executed the works in question is spoken of as Hiram, whose mother was a widow of the tribe of Naphtali, and his father a man of Tyre, a worker in brass. It is probable, however, that this is the same person elsewhere spoken of as the son of a woman of the daughters of Dan, for Dan, the ancient Luz, was a city in Naphtali, these two tribes having probably intermingled to such an extent that the distinction between them was in a measure lost.

‡ The Jewish cubit was equal to about twenty-one inches of our measurement.

§ In 2 Chronicles, iv, 5, its capacity is stated at three thousand baths. The bath was a liquid measure of a fraction more than 10½ gallons.

to be hewers in the mountains, and three thousand and six hundred overseers to set the people a work." These strangers were probably descendants of the ancient Canaanites, and as they were a subject people, the King appears to have had no scruple in impressing them into his service. In addition to the "strangers" it appears that Solomon raised thirty thousand men by a levy upon all Israel. These were sent to work in the mountains of Lebanon, "ten thousand a month by courses; a month they were in Lebanon and two months at home." (1 Kings, v, 13 and 14.) The arrangements to secure the aid of Phœnician workmen in cutting timber in Lebanon were made with the King of Tyre, to whom Solomon says, "And unto thee will I give hire for thy servants according to all that thou shalt appoint; for thou knowest that there is not among us any that can skill to hew timber like unto the Sidonians." King Hiram promises that his servants shall do as Solomon has desired "concerning timber of cedar and concerning timber of fir;" and he further engages to bring them down from Lebanon unto the sea, "and convey them by sea in floats" to the place that Solomon may appoint; which place appears to have been Joppa. In return for these services he tells Solomon, "Thou shalt accomplish my desire in giving food for my household."

The amount of the supplies which Solomon furnished under this arrangement is stated at twenty thousand measures of wheat and twenty measures of pure oil. (1 Kings v, 6, 8, 9, and 11.)\*

It will be observed that the "strangers" impressed by Solomon into his service, as well as the thirty thousand men raised by a "levy" upon all Israel, appear to have been assigned to unskilled labor, and except in the case of Hiram of Tyre, no account is given of the manner in which artisans were obtained for the execution of such work as required a higher degree of mechanical and artistic skill. It is probable, however, that these were mainly free laborers, Jewish and Phœnician, who received regular wages for their services. In later times skilled mechanics were held in high esteem among the Jews, and in some cases, like that of St. Paul, men of learning and of superior talents thought it no dishonor to earn their subsistence by a mechanical occupation. Indeed, the head of every Jewish family was required to have his sons instructed in some trade.

In respect to slavery, the Jews presented no exception to the general practice of the age; but the law, while permitting them to purchase slaves of the heathen around them, or of the strangers sojourning among them, forbade them to reduce a Hebrew to perpetual servitude, except with his own consent in one case mentioned below. In Leviticus, xxv, 39, 40, and 41, it was provided that if a Hebrew were impoverished and sold to another person of his own race, he should not be compelled to serve as a bondservant, but "as a hired servant and as a sojourner," and this only until the year of jubilee, when he should depart, and his children with him, and return to his own family and to the possessions of his fathers. In Exodus, xxi, it was provided that if a Hebrew were purchased as a servant, he should serve six years, and in the seventh year should "go out free for nothing"; that if he were married on coming into servitude, his wife should go out with him; but if his master had given him a wife, and she had borne him sons or daughters, she and her

\* This account differs somewhat from that given in 2 Chronicles, ii, 10, in which Solomon is represented as saying to Hiram, "And behold I will give to thy servants, the hewers that cut timber, twenty thousand measures of beaten wheat, and twenty thousand measures of barley, and twenty thousand baths of wine, and twenty thousand baths of oil." The Jewish "measure" was the *chœnix*, containing nearly a quart.

children should be her master's. If the servant elected to remain in servitude rather than leave his wife and children, his master was to take him before the judges and bring him to the door, or to the door-post, and bore his ear through with an awl, in token of his perpetual servitude. If a man struck a servant so that he died under his hand, it was provided that he "be surely punished;" but if the servant lingered a day or two, the master was not to be punished, the theory being that the servant was "his money." If a man struck out an eye or a tooth of his servant, he was to give him his freedom by way of reparation for the injury. If a servant escaped from his master, he was not to be delivered to him. "He shall dwell with thee," is the command, (Deuteronomy, xxiii, 16,) "even among you, in that place which he shall choose in one of thy gates, where it liketh him best; thou shalt not oppress him." This appears to refer to servants escaping to the Israelites from the countries around them. In reference to the treatment of hired servants, we read (Deuteronomy, xxiv, 14 and 15) "Thou shalt not oppress an hired servant that is poor and needy, whether he be of thy brethren, or of the strangers that are in the land within thy gates. At his day thou shalt give him his hire, neither shall the sun go down upon it; for he is poor and setteth his heart upon it: lest he cry against thee unto the Lord, and it be sin unto thee."

The laws of the Israelites with reference to property exhibit a peculiar regard for the interests of the poor. On taking possession of Canaan they divided the land among them; and although it is not explicitly so stated, the presumption is, that the division was, as nearly as practicable, an equal one, except that Joshua, and probably some other leaders, received shares which were larger than the average allotment. To counteract the tendency of land to accumulate in a few hands, a year of jubilee had been instituted in the law of Moses, which was to occur once in every fifty years, and at this time every man was to return to his possessions.

The land was not to be sold in perpetuity,\* but only its usufruct until the year of jubilee. This usufructuary title is clearly indicated in the sixteenth verse of the twenty-fifth chapter of Leviticus, which reads as follows: "According to the multitude of years (until the jubilee) thou shalt increase the price thereof, and according to the fewness of the years thou shalt diminish the price of it; *for according to the number of the years of the fruits doth he sell unto thee.*" If an Israelite were compelled by poverty to sell the land he had inherited, his kinsmen had the right to redeem it for him by simply paying its usufructuary value until the year of jubilee; or if he, himself, were able to do so, he might redeem it upon the same terms; but if neither he, nor his kinsmen for him, could redeem it, he received it back in the year of jubilee.†

A house in a walled city might be redeemed within one year after its sale, but not later; nor was it restored in the jubilee; but houses in the unwallled villages were regarded as the fields of the country; they might be redeemed at any time upon the same terms, and were restored in the year of jubilee. It should be said, too, that this rule applied to the houses of the Levites, even in walled cities, at least in the cities assigned to them; "for the houses of the cities of the Levites were their possession among the children of Israel." (Leviticus, xxv, 33.)

The year of jubilee had the same relation to personal liberty as to

\* "The land shall not be sold forever; for the land is mine; for ye are strangers and sojourners with me."—Leviticus, xxv, 23.

† *Idem.*, verses 25–28. This rule undoubtedly applied also to his children if he himself should die before the jubilee arrived.

possessions.\* If a Hebrew, under stress of poverty, sold himself to a rich stranger sojourning in the land of Israel, his near kinsmen might redeem him by paying for the years to elapse before the jubilee; or if able, he might redeem himself upon the same terms; and in the jubilee he went free without redemption. Of course, all contracts, whether for land or services, must have been made with this understanding; so that the law inflicted no injustice upon purchasers. Its effect was to put it out of the power of a man to sell himself, for some present indulgence, into a perpetual servitude which would involve the servitude of his children, or to alienate permanently, for the gratification of his own extravagance or indolence, a title to landed property, in which he could justly have only a life estate; in other words, it put it out of his power to reduce his children to beggary by selling for his own advantage their natural right to a portion of the land which had been given to the nation as their common inheritance.

The following injunctions from the twenty-third and twenty-fourth chapters of Deuteronomy are in keeping with many others that may be found in the laws of Moses and in other portions of the Old Testament: "Thou shalt not lend upon usury to thy brother, (*i. e.*, to a Hebrew.) \* \* \* Unto a stranger thou mayest lend upon usury†; but unto thy brother thou shalt not lend upon usury." \* \* \* "When thou dost lend thy brother anything, thou shalt not go into his house to fetch his pledge. Thou shalt stand abroad, (outside,) and the man to whom thou dost lend shall bring out the pledge abroad unto thee; and if the man be poor, thou shalt not sleep with his pledge. In any case thou shalt deliver him the pledge again when the sun goeth down." \* \* \* "Thou shalt not pervert the judgment of the stranger, nor of the fatherless, nor take a widow's raiment to pledge." \* \* \* "When thou cuttest down thine harvest in thy field, and hast forgot a sheaf in the field, thou shalt not go again to fetch it; it shall be for the stranger, for the fatherless, and for the widow." \* \* \* "When thou beatest thine olive-tree, thou shalt not go over the boughs again." \* \* \* "When thou gatherest the grapes of thy vineyard, thou shalt not glean it afterward; it shall be for the stranger, and the fatherless, and the widow." That these and other humane laws were frequently disregarded, and even flagrantly disobeyed, is evident from the repeated denunciations of the prophets against usury and other oppressive practices. In Nehemiah we read that "there was a great cry of the people, and of their wives, against their brethren, the Jews." Some are represented as saying, "We have mortgaged our lands, vineyards, and houses, that we might buy corn, because of the dearth." Others complained that they had borrowed money upon their lands and vineyards for the king's tribute. "And, lo, we bring into bondage our sons and our daughters to be servants," said they, "and some of our daughters are brought into bondage already; neither is it in our power to redeem them, for other men have our lands and vineyards." Thereupon Nehemiah rebukes "the nobles and the rulers," saying, "Ye exact usury every one of his brother," and calls upon them to restore to their impoverished brethren "their lands, their vineyards, their olive-yards, and their houses," as well as "the hundredth part of the money, and of the corn, the wine and the oil" that they have exacted from them. To this they consent, and he calls the priests to witness their oath that they will do "according to this promise." This appears to have occurred subsequent to

\* "And ye shall hallow the fiftieth year, and proclaim liberty throughout all the land, unto all the inhabitants thereof."—Leviticus, xxv, 10.

† All interest was formerly denominated "usury."

445 B. C., when Nehemiah had obtained authority from Artaxerxes to proceed to Judea and rebuild Jerusalem. The captivity of the Jews in Babylon, and the domination of the Persians, Syrians, and Romans must have interfered to a considerable extent with the operation of their own laws; and the oppressive tribute to which they were at times subjected, as well the frequent wars between greater powers in which they were more or less involved, must have reduced them, at times, to a condition of severe suffering.

## LABOR IN CHALDEA AND ASSYRIA.

These two countries, the former occupying the lower and the latter the upper portion of the valleys of the Euphrates and Tigris with the intermediate region, may be considered as having formed one nation for a period of several centuries, comprising the best known portion of their history. Their people differed in race and language, and the civilization of Chaldea was of much earlier origin than that of Assyria; but of the history of the old Chaldean empire little is known that could throw any light upon the subject of the present inquiry, beyond the bare fact that there existed great cities and other results of an industry that involved mechanical skill of no mean order. After the fall of Assyria under the power of the Medes, Chaldea (sometimes called Babylonia, after the name of its celebrated capital) again flourished for something less than a century as an imperial power; and during this period occurred the reign of the great Nebuchadnezzar of Scripture. In this later period, as also during the period of Assyrian supremacy,\* and probably for centuries before that period commenced, Babylon was celebrated for many of the products of its industry, among which may be mentioned textile fabrics of remarkable fineness, and exquisite dye. The city itself, characterized by Isaiah as "the glory of kingdoms, the beauty of the Chaldees' excellency," is described as one of whose grandeur the greatest cities of modern Europe give but a faint conception. According to Herodotus, it formed a perfect square, each side of which measured about fifteen miles in length, giving a total area of two hundred and twenty-five square miles. Its walls (according to the same authority) were two hundred cubits, about three hundred feet, in height, and fifty cubits, or seventy-five feet, in width. In them were one hundred massive gates of brass. "Its internal beauty and magnificence," says Herodotus, "exceed whatever has come within my knowledge." The Assyrian capital, Nineveh, was scarcely inferior to Babylon in extent and magnificence; and these were but two out of many great cities, of which the extensive region embraced in Chaldea and Assyria still bears numerous traces. The ruins of ancient palaces and temples, as well as accounts and representations in the inscriptions and sculptures found among such ruins, indicate clearly enough the colossal scale and elaborate ornamentation of those structures. Each king appears to have endeavored to eclipse his predecessors in the number, extent, and magnificence of the architectural works executed during his reign; and many of these works apparently had no other use than to gratify the ambition and vanity of the monarchs. Occasionally, however, other works of a more useful character were undertaken. Thus Sennacherib, besides building himself a splendid palace, covering an area of more than eight acres, at Nineveh, and repairing the ancient residence of the kings at the same place, confined the Tigris to its bed

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\*A supremacy not without occasional interruptions.

by an embankment of bricks, constructed a number of aqueducts for the purpose of bringing good water to the capital, and improved the defenses of the latter by erecting towers of vast size at some of the gates. Of the extent of the burdens imposed upon their subjects by the Assyrian kings for the gratification of their mania for great buildings, especially those of the class intended as royal residences, an indication is afforded in the fact recorded by Essarhaddon, one of the monarchs of this line, that twenty-two kings, of whom he gives a list, furnished him with materials for his great palace at Nineveh. In the construction of such works the Assyrians were accustomed to employ the labor of captives taken in war. Among these the skilled workmen were in request to assist in the ornamentation of shrines and palaces, while the great mass of the unskilled were employed in quarrying stone, raising mounds, making bricks, and similar occupations. It has already been stated that Sennacherib brought back to Assyria upwards of six hundred thousand prisoners in three campaigns, and the number of captives made in other successful expeditions was probably on the same scale. In the inscription on the Bellino cylinder this king states that he employed Chaldeans, Aramæans, Armenians, Cilicians, and Quhn (Coans) in the construction of his great works; and to these may probably be added Egyptians, Ethiopians, Elamites, and Jews. Their work consisted, among other things, in raising the vast mounds upon which important edifices were to be erected, in the transport and elevation of colossal bulls, in the molding of bricks, the quarrying of stone, the erection of walls, the excavation of canals, and the construction of embankments. They worked in gangs, each gang having a costume peculiar to it, which probably marked the nationality of its members. Over each of these gangs was placed a number of task-masters, armed with staves, who urged on the work with blows, and severely punished any neglect or remissness. Assyrian foremen had the general supervision of the works and were intrusted with such portions as required great skill or judgment. The captives often worked in fetters, which were sometimes supported by a bar fastened to the waist, while sometimes they consisted merely of shackles.\*

The bas-reliefs on the walls of the Assyrian palaces and other public buildings exhibit a minute and rigid adherence to reality, which makes them a source of much valuable information as to the life of the people. Rawlinson gives us the following description of a series of sculptures, in which are minutely represented the several processes connected with the carving and transportation of a colossal bull, "from the first removal of the huge stone in its rough state from the quarry to its final elevation on a palace mound as part of the great gateway of a royal residence." The sculpture in question is found on the walls of Sennacherib's palace, and may doubtless be regarded as a veritable portion of the history of the erection of that or some other structure of that monarch's reign. "We see," says Rawlinson, "the trackers dragging the rough block, supported on a low flat-bottomed boat, along the course of a river, disposed in gangs, and working under task-masters, who use their rods upon the slightest provocation. \* \* We then observe the block transferred to land, and carved into the rough semblance of a bull, in which form it is placed upon a rude sledge and conveyed along level ground by gangs of laborers, arranged nearly as before, to the foot of the mound at whose top it has to be placed. The construction of the mound is most elaborately represented. Brick-makers are seen molding the bricks at its

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\* Rawlinson's Ancient Monarchies.

base, while workmen with baskets at their backs, full of earth, bricks, stones, or rubbish, toil up the ascent—for the mound is already half raised—and empty their burdens out upon the summit. The bull, still lying on its sledge, is then drawn up an inclined plane to the top by four gangs of laborers, in the presence of the monarch and his attendants. After this the carving is completed, and the colossus, having been raised into an upright position, is conveyed along the surface of the platform to the exact site which it is to occupy.\*

The absence of labor-saving appliances indicated in the processes represented in this series of sculptures, shows how vast must have been the expenditure of sheer muscular force in the construction of the great buildings of this period. Gangs of laborers take the place of horses to haul the immense stone, not only by water, but also by land; and for the latter portion of the distance a sledge is used instead of a wheeled vehicle. To raise such a structure as Sennacherib's palace at Nineveh, by methods so primitive in their character, must have required a number of workmen which it can be no exaggeration to speak of as a great army. And though this army of laborers may have been composed of captives, the expense of maintaining them while engaged on these unproductive works must have occasioned heavy drafts upon the resources of the Assyrian people, and of the nations under their sway.

The constant and ferocious wars in which the Assyrian kings engaged must have been a source of frightful impoverishment to their own people, and of inconceivable sufferings to the nations against which they waged successful war. It appears to have been their distinct aim in many cases to spread utter ruin and desolation in the countries they had conquered, even to the extent of cutting down the fruit-trees, and thus depriving their victims, as far as possible, of the means of subsistence for the future. According to his own account, as given in one of the inscriptions exhumed at Nineveh, Sennacherib, in the third year of his reign, invaded Chaldea, (which had previously revolted,) and plundered seventy-six large towns, and four hundred and sixty villages; while Sargon, his predecessor, not content with plundering the people he conquered, removed entire populations *en masse* to distant localities.\*

It scarcely needs explicit information to convince one that, under such rulers, the condition of the working-classes must have been, in the main, one of extreme wretchedness. Among the Assyrians themselves the ordinary dress of this class and of the common people generally appears to have been a mere plain tunic, with very short sleeves, and confined round the waist by a broad belt or girdle. Nothing was worn by this class either on the head or on the feet. As to their dwellings and fare, these were doubtless in keeping with the scantiness of their apparel.

In agriculture the Assyrians and Chaldeans depended largely upon artificial methods of irrigation; and the elaborate system of canals, reservoirs, conduits, dikes, and pumps, by which they spread the waters of their rivers over the soil, indicates that this branch of industry was carried on with considerable energy and skill. Among a people so warlike as the Assyrians, and especially a people who carried to such an extent as they did the practice of enslaving their prisoners of war, the operations of agriculture, and, indeed, the common and heavy labor in most of their industries, must, to a great extent, have been performed by slaves; but upon this point, as upon most others connected with the daily life of the people, we are obliged to rely mainly upon inference. The important discoveries recently made of inscribed clay tablets and

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\* This was the king who colonized the cities of Samaria with an alien race.

cylinders, and monumental stones, coupled with the zealous efforts of Mr. George Smith and other cuneiform scholars, will doubtless develop many new and important facts connected with the history of these nations and the condition of their people. It would be interesting to inquire into the history and condition of the working-classes in Persia, which succeeded Assyria and Babylonia as the leading military power of the ancient world; in Syria, including Phœnicia, famous for her commercial enterprise, her flourishing colonies, her skillful artisans, and her important agency in the spread of letters and the arts of civilization; in Lydia, Ionia, and other states of Asia Minor, during the period of their independence, as well as in the nations of the farther East. But the labor involved in an inquiry of such extensive range would be too formidable to be undertaken as an incident to a work like this, and it must suffice to glance briefly at the more familiar histories of Greece and Rome, so far as they relate to the special subject under consideration.

#### LABOR IN GREECE.

To no other nation of antiquity has the modern world been indebted for intellectual treasures of such extent and value as those bequeathed to it by ancient Greece. The revival of Greek learning, more perhaps than any other single cause, communicated to European thought that powerful impulse which marks the close of the Dark Ages and the dawn of modern civilization. The thought of Greece has been woven into the texture of modern literature; her philosophy furnished to modern speculation its initial stimulus; her institutions have been a fruitful source of political instruction; her art has kindled the emulation of modern artists, and supplied them with their noblest ideals of grace and beauty. Of her eminence in industrial achievements there are innumerable proofs. The remains of her great edifices attest, not only the genius of her artists, but the skill of her artisans, of which abundant evidence is also found in the rare excellence and fineness of a great variety of her industrial products. The religion of the Greeks was highly favorable to the diffusion of the artistic spirit through their mechanical industries. This was especially noticeable in the working of the precious metals, of which immense quantities were used in the fabrication of images, utensils, and furniture for the temples of the gods. "Occasionally articles of plate of enormous size were manufactured, such as cisterns, or vases, or tripods, or salvers, or goblets, of gold or silver, presented as offerings by whole cities or communities to some divinity. In these cases the workmanship was very frequently so elaborate and exquisite as to be still more costly than the materials. Entire landscapes, including innumerable figures and objects, were sometimes represented on the swell of a vase or goblet. Bacchanalian processions, for example, with whole troops of satyrs and mænades moving along some wooded valley, or desert mountain, or rocky shore, at the heels of the Seileni and Dionysos; groups of nereids, nymphs, and tritons, sporting in the warm sunshine on the unruffled expanse of ocean; and sacrifices, marriages, chariot races, and choruses of youths and virgins moving through the mazes of the dance around the altar of Apollo or Artemis. It is also to Hellenic goldsmiths that we are evidently to attribute those marvelous productions of art reckoned among the most boasted possessions of the Persian kings, such as that vine of gold,



with its vast grape clusters, imitated both in size and color by the most precious gems, which formed a canopy over the royal couch; or that golden platane tree, and other vine, which rising from behind the throne stretched its branches, tendrils, and leaves of gold aloft over the monarch as he sat in state to give audience to his people."<sup>7</sup>

The washing and plating of the inferior metals with gold and silver were well understood, and there were many ingenious devices for coloring and frosting the surface, and for inlaying and flowering one metal with another. The cutting, engraving, and polishing of precious stones were carried to a high state of perfection by the Greeks, who in these processes appear to have employed all the finer tools in use at the present day, including the diamond point and the lapidary's wheel. It is at least certain that they engraved figures which for beauty and delicacy have never been excelled. There is reason to believe that they were acquainted with the microscope, or at least that they used magnifying glasses of great power, since their engravings were sometimes so fine that the naked eye could not distinguish their lines. Indeed we find mention of burning glasses as early as the age of Socrates, and very powerful lenses have been discovered among the ruins of Herculaneum.

In the earliest ages of Greece the metal used for arms and for tools of various kinds was brass; but iron and steel were in use in the days of Homer, who speaks of axes and other implements made of iron, steeled at the edge, and describes the process of hardening by immersion in cold water. Swords made of steel thus hardened appear to have been extremely brittle, since they are represented as having been frequently shivered to pieces by a blow on a shield or helmet. When greater tenacity was required oil was subsequently used for cooling instead of water. At a later day the manufacture of swords was an object of special attention. They were formed of the finest steel, highly polished and elaborately ornamented. The manufacture of arms and armor of all descriptions was at all times, among the Greeks, one of the most important pursuits, and was carried to a high state of perfection. In the production of cutlery the Delphians appear to have attained celebrity, and that of the Athenians was, undoubtedly, remarkable for its elegance, if not also for its quality.

The workshop and tools of the smith seem to have had a close resemblance to those of the present day. There were the anvil mounted on a high block; the bellows, formed of thin boards, connected by flaps of cowhide, and expelling the air through an iron nozzle; the hammer, the tongs, the vise, and other familiar implements.

The metals used by the Greeks were obtained partly by commerce, partly from their own mines. Those at Laurion, in Attica, were important and extensive, but there is little attainable information as to the methods of mining. It is known, however, that the Athenians used both shafts and adits, and that in chambering they employed much timber. To prevent the falling in of the superincumbent mountain, there were left at intervals vast pillars, the cutting away of which was prohibited on pain of death. Among the Greeks, as well as in our own country at the present day, the miner was exposed to great perils from fire damp and malaria; at least, this is known to have been the case at Laurion, but whether there were any means of protection against such gases is a matter of uncertainty. The quarrying of marble, granite, freestone, and tufa, for building purposes, was a flourishing industry. The last-mentioned material, in a powdered state, was often used in conjunc-

\* St. John: Manners and Customs of Ancient Greece.

tion with clay, in the manufacture of bricks. Great ingenuity was displayed in the manufacture of cement, of which one variety was so durable as frequently to outlast the materials it was used to unite.

The house-painters of Greece appear to have shared in the artistic tendencies which characterized the nation. They were frequently employed in producing upon the polished surface of one stone the colors and veining of another, while frescoing appears to have been considerably practiced in the ornamentation of the interior of private houses as well as of public buildings. The walls of apartments were sometimes covered with historical subjects, landscapes or the figures of animals, and in the later ages ceilings were painted or inlaid with colored stones, so as to imitate the feathers and hues of a peacock's tail.

In house-building timber appears to have been used to a considerable extent, thus bringing into prominence the trade of the carpenter, whose tools comprised most of those used by the carpenters of the present day, such as saws of various sizes, the plane, the ax, the chisel, the square, the auger, the gimlet, the compass, and various other articles. The timber employed in the construction of houses appears to have been regulated by law, and comprised a number of varieties, such as the silver fir, the elm, cypress, cedar and juniper, the Arcadian and Idæan yew, the Euboean walnut, and the beech.

The descriptions of the household furniture in use among wealthy Greeks prove that the trade of the cabinet-maker must have been carried to a high state of perfection, while the craft of the turner yielded them many articles of great elegance. The manufacture of musical instruments was another industry in which the Greeks excelled.

The potters of Greece, especially those of Athens, Rhodes, and Samos, were famous for the beauty and excellence of their productions. The earthenware made at Kolias in Attica from the clay found at that place, and richly painted with figures in minium, appears to have been the most beautiful known to the ancient world. Great skill and taste were displayed in the production of vases, whose light and graceful contour, as well as the exquisite beauty of their decorations, showed that the Grecian potters had cultivated to a high degree the art of design, in which the natural artistic aptitude of the race found fitting opportunities for its development. Among the figures usually painted on such articles were representations of the gods or genii, wreaths of oak leaves and garlands and festoons of flowers. The manufacture of lamps was an important branch of the business of the potter, who also produced artificial representations of fruits, and images of gods, men or animals, which were sold about the streets as plaster of Paris images sometimes are at the present day. An idea of the prices of these images is obtained from the fact that a figure of Eros sold for a drachma, or about 19 cents.

The manufacture of glass was carried to a high degree of perfection by the ancients, who were familiar with the processes of blowing, cutting, engraving, and staining it. In the latter process they could imitate the colors and the brilliancy of the most precious gems, from the ruby and the amethyst, to the turquoise and the beryl.

Of this material, it is said, they also fashioned "jars, bowls, and vases, exhibiting all the various hues of the peacock's train, which like shot silks and the breast of the dove, displayed fresh tints in every different light—fading, quivering, and melting into each other as the eye changed its point of view."

In the quality of their textile fabrics the Greeks, as well as various other nations of antiquity, appear to have been fully equal to the manufacturers of modern times; but owing to the absence of labor-saving

machinery these fabrics, especially the finer ones, could only be produced in comparatively insignificant quantities, and the clothing worn by the masses of the people was not to be compared with that which they are able to wear at the present day.

To the Greeks is attributed the invention of the upright and horizontal loom, though these appliances were probably improvements upon somewhat ruder machines used elsewhere for the same purpose. The Achaean city of Patræ was celebrated for the fineness of its fabrics, the spinning and weaving of which appear to have been chiefly carried on by the women, who in that city were twice as numerous as the men. The supply of flax used in the finer linens manufactured there was obtained from the plains of Elis, where the plant attained a perfection which made it, in respect to fineness, the rival of the best grown in India, and for whiteness its superior. The finest linens made from it were considered worth their weight in gold. The island of Amorgos was also celebrated for a species of fine flax, cultivated there, as well as for the exquisite texture and beautiful purple dye of the linens which the inhabitants of the island manufactured therefrom. Very superior cloths were also manufactured from hemp, and a variety of garments, including a sort of mantle for ladies, were made of hair, either woven or plaited. The rearing of silk-worms and the weaving of silk were practiced at an early age in the island of Cos, the fabrics of which were universally admired. Their fineness and transparency were such as to allow the entire form and color of the body to be distinguished through them. The silk-worms of Cos were fed on the leaves of the pine, ash, and oak, and the silk obtained from them was quite different from that produced by worms fed on the leaves of the mulberry. Another kind of silk was procured from the floss-like beard of the *pinna marina*, or silk-worm of the sea, which was found on the coasts of Asia Minor, Sicily, and the Balearic Isles.

In the manufacture of carpets the Greeks displayed their usual taste and skill, both in respect to their quality and the elegance of their patterns, in which were represented trees, flowers, the figures of animals, and other objects.

The trade of the shoe-maker appears to have been a thriving one at every period of Grecian history, and the work-shops of this class of artisans were neatly furnished, their lasts, paste-pots, pincers, awls, and other implements being kept in a sort of cabinet, sometimes furnished with double folding-doors and four or five deep shelves, and extremely elegant in form.

In the art of dyeing the Greeks not merely equaled, but probably excelled, the people of the present age. Their purple, a color also produced with great success by the Phœnicians and other ancient peoples, was often spoken of by Greek and Roman authors with an admiration bordering on rapture. This dye was obtained from several kinds of shell-fish found in the Mediterranean, the best being those taken near the island on which was built New Tyre. According to Aristotle there were several varieties of the purple fish, varying in size as well as in the color of the liquid they produced. This liquid was contained in a white vein about the neck, the only part of the fish that was of any value. The coloring matter having been carefully collected and macerated in salt for three days, was then mixed with a certain quantity of water, and boiled for ten days in leaden boilers over a slow fire, when the wool, previously well washed, was dipped in the dye and left to soak for five hours. It was then taken out to be dried and carded, after which it was thrown back in the dye and left there until it absorbed the

whole of the liquid. Several varieties of the fish were usually mixed together, differences of shade being obtained by altering the proportions, as well as by the introduction of other ingredients, among which was a kind of moss, found in abundance on the rocky shores of Crete. Three distinct colors seem to have been included under the general name of purple, viz, a deep violet, with a black or dusky tinge, which was the amethystine shade which Pliny describes as so magnificent; the purple of Tyre and Tarentum, which was of a deep scarlet or crimson; and a tint resembling the dark blue of the Mediterranean Sea, when it begins to be ruffled by the winds.

A brilliant scarlet dye, which was greatly admired, was made of kernes, or cochineal. This was found in various parts of Greece, and appears to have been in use there from the remotest antiquity. Many other colors were produced in great perfection by the Greek dyers, such as bright flame and saffron color; pink, green, and russet gray; deep and sky blue, produced by woad, and red produced by madder.

In respect to the number of persons employed, and the value of their products, the fisheries of Greece ranked among the most important of her industries, while their effect in training a skilled and hardy race of seamen contributed greatly to the superiority of the Greeks in naval warfare.

The importance of agriculture, and the high esteem in which it was held among the Greeks, will give interest to a few particulars in regard to it. In Attica many of the owners of estates resided in the city, but rode out to their farms every day to superintend the labors of their workmen, who were usually slaves. Agricultural labor commenced with daylight. The meals were generally cooked and eaten in the open air, and the labor was often carried on amid rustic songs, especially during the harvest and the vintage, which were seasons of universal rejoicing, and were followed by joyous festivities in honor of the rural gods.

In order to procure the necessary implements and utensils of the farm at a cheap rate, smiths, carpenters, and potters were kept upon the land, or in its immediate neighborhood, by which means the master avoided the necessity of sending the farm-servants too frequently to the neighboring town, where they were supposed to be liable to contract bad habits. Wagons, carts, plows, and harrows were, therefore, constructed on the farm. Among other implements used by the Greek farmers may be mentioned winnowing-fans, scythes, sickles, pruning-hooks, fern or bracken scythes, hand-saws, (used in pruning or grafting,) spades, shovels, rakes, pick-axes, hoes, mattocks, and grubbing-axes. When engaged in cutting down thickets, or clearing away underbrush, the rustics wore hooded skin cloaks, leather gaiters, and long leather gloves or mittens. In choosing a plowman it was customary to take care that he should be tall and muscular, in order that he might be able to thrust the share deeper into the ground, and wield it with greater facility. It was also preferred that he should not be under forty years of age, since it was desired that he should be very steady and attentive to his work. When in particular haste to complete his task, the plowman often carried a long loaf under his arm, which, like the French peasants, he ate as he went along. In breaking sod oxen were commonly employed, but in other plowing the preference was given to mules.

In Athens it was the custom for such persons as desired employment in harvesting to range themselves in bands in the Agora, or marketplace, whither the farmers resorted to secure such help as they needed for the busy harvest season. Arrived in the field with sickle in hand, it

was common for the reapers to commence at opposite ends of the piece of grain to be cut, the members of each party striving to reach the middle of the field before their rivals. On other occasions they took advantage of the wind, moving in the same direction with it, and thus having the straw conveniently bent to their hand. In many parts of Greece the women joined in this labor, though the custom was not general. In cutting wheat the sickle appears to have been always used, but barley and other inferior grains were usually cut with the scythe. There were a variety of ways of separating the grain from the straw, of which the most common appears to have been to arrange the sheaves in a circular form to be trampled by oxen, horses, or mules, whose movements were directed by a driver standing in the center. A species of harrow, or toothed sledge, was sometimes used for the same purpose, and the flail was occasionally employed, especially in the case of grain which was laid up in the barn to be thrashed during the winter.

After these brief notices of a few of the leading industries pursued among the Greeks, it may not be amiss to reproduce an alphabetical enumeration of occupations which is given by Fosbroke in his "Treatise on the Arts, Manufactures, Manners, and Institutions of the Greeks and Romans." Omitting a few unimportant details, the list is as follows: Bottle-makers, (or makers of leathern bottles;) bankers, (money changers or usurers;) barbers, some of them females, and barber-surgeons; basket-makers, blacksmiths and brasiers, butchers, of whom there appear to have been none at the time of the Trojan war, since the heroes of Homer are represented as cutting up their own meat; capon cutters, carpenters, and cooks—the latter being men, who were sometimes hired by the day at a high price; coppersmiths, cotton manufacturers and dealers in cotton goods, couriers, dyers, enamelers, factors, farmers, felt-makers, fishermen, fish-mongers, flax-dressers, founders, fresco-painters, fullers, gilders, glass-manufacturers and globe-makers, the globes being made of glass; glue-makers, goldsmiths, and gardeners, the latter understanding the art of grafting; grooms, hair-cloth manufacturers, horse-breakers, joiners, market-clerks, (who attended to the weights, measures, and qualities of the goods,) midwives, mountebanks, oilmen, painters, paper and parchment makers, pastry-cooks, perfumers, pilots, (a profession held in high esteem,) porters, potters, poulterers, prison-keepers, quack doctors, readers, (whose office was to read to their masters during dinner, at night when they could not sleep, and at other times,) shepherds, tanners, tutors, watchmen upon towers, wax-chandlers, and weavers.

In respect to the condition and mode of life of the people by whose labor the various industries were carried on, the information afforded by the ancient writers is comparatively scanty. There were doubtless many freemen of the poorer class who worked with their own hands in carrying on mechanical and other industries in a small way on their own account, as did the spinners and weavers of Lancashire, England, and the shoe-makers of Massachusetts, before the application of machinery to their respective industries. In the agricultural districts there were also peasants, such as the Thetes of Attica, who cultivated small tracts of land, for the use of which they paid the proprietors a share—according to Boeck, one-sixth—of the produce. These peasants, as well as many of those who carried on small mechanical industries on their own account, probably often worked for wages. Indeed, the Thetes are sometimes referred to as a class of hired laborers. In many cities, and especially in Athens, there were a considerable number of resident aliens who worked for hire, chiefly perhaps in the mechanical trades;



and after the Peloponnesian war Athenian citizens who had previously enjoyed comparative affluence were obliged to support themselves by working at any sort of manual labor for daily wages.

It appears to have been a special object of the polity of Solon, whose archonship commenced in 594 B. C., to increase the number of artisans and the amount of the manufactures of Athens. For this purpose he prohibited the exportation of any of the products of the soil, with the single exception of olive oil, which was extremely plentiful. He also forbade the granting of citizenship to immigrants unless they had forever abandoned their former abodes, and came to Athens for the purpose of carrying on some industrial occupation. The senate of Areopagus was directed to keep watch over the lives of citizens generally, and punish all who had no regular occupation to support them; and if a son had not been taught some art or profession by his father the laws of Solon relieved him from the obligation of supporting that father in his old age. It was the wish of this lawgiver that the exports of Athens should consist of the products of artisan labor rather than the produce of the land. This policy probably had much influence in promoting the success of Athens in manufactures and increasing the number of her free artisans.

Respecting the rates of wages it is necessary to depend mainly upon occasional indications, such as the incidental mention of wages paid in particular occupations. Lucian states that in the age of Timon (about 420 B. C.) the daily wages for garden or field labor was 4 oboli, or about 13 cents; but Boeck appears to think it probable that this author refers to earlier what really belongs to later times. The same sum is mentioned by Aristophanes as the wages of a porter, and also as that of a day-laborer, who carried manure. The philosophers Menedemus and Asclepiades are said to have earned 2 drachmas (about 39 cents) a night by grinding corn in a mill; but this appears to be quite an exceptional rate of pay. The crew of the *Paralos*, one of the two sacred triremes belonging to the Athenian state, always received 4 oboli (13 cents) a day, although this vessel was usually kept in port. It may be remarked that the members of the crew were all freemen. The pay of the soldiers varied between 2 oboli and 2 drachmas a day, but the larger amount included the allowance for subsistence to a hoplite (a heavy armed soldier) and his attendant. The pay of a hoplite was never less than 2 oboli per diem, with an equal amount for subsistence. This was the customary rate in the time of Demosthenes, who calculates the cost of the subsistence of a hoplite at 10 drachmas, (60 oboli,) and that of a cavalryman at 30 drachmas (about \$5.85) a month. At the beginning of the Peloponnesian war each of the hoplites engaged in the siege of Potidæa received 2 drachmas a day for himself and his attendant; and the same pay is mentioned by Aristophanes as having been asked by certain Thracian mercenaries, subsistence in each case being included in the sum named. The troops of the Athenian army operating in Sicily received 1 drachma a day, of which one-half was for subsistence, and the archers who formed the civic guard of Athens were paid at the same rate. After the destruction of Mantinea, the cities in alliance with Sparta furnished money in lieu of troops at the rate of 3 Eginetan oboli\* per diem for each foot-soldier, and 12 for each cavalryman. From the instances given it will be seen that the pay of the cavalry was twice, thrice, or even four times as much as that of the infantry. Among the Athenians it was usually three times as high, and the same rule held good among the Romans.

It is said that a soldier could maintain himself sufficiently well for 2 or 3 oboli ( $6\frac{1}{2}$  to  $9\frac{1}{2}$  cents) a day, especially as living in many places

\* Three Eginetan oboli were worth 5 Attic oboli.

where he had to serve was much cheaper than in Athens. The allowance for subsistence was usually equal to the pay. Out of the latter the soldier had to provide clothing and arms, and after doing this he commonly had a surplus left, which, when opportunity favored him, he frequently augmented by plunder. In this way a soldier would often amass quite a little fortune. Theopompus says that with a daily pay of 2 oboli a soldier could maintain a wife, and that with 4 oboli his fortune was complete, by which he evidently means so much pay independent of the allowance for subsistence.

The earnings of professional men, including musicians and actors, in Athens were, at least in some instances, very large. The celebrated physician, Democedes of Croton, being invited to Athens, received from the state a salary of 100 minas, or a little less than \$2,000 in gold, which for that age (540 B. C.) was a large amount. Flute-players sometimes obtained almost incredible prices for their services, and distinguished actors equally large amounts. Thus Palus, or Aristodemus, is said to have earned a talent (nearly \$1,200 in gold) in one or two days. The teachers of philosophy and rhetoric, or sophists, were also a well-paid class. Protagoras, of Abdera, the first who taught for money, charged a pupil 100 minas for his complete course of instruction, and Georgias exacted the same amount; but in later times, when the number of these teachers had multiplied, the rates of tuition were considerably reduced.

The cost of the necessities of life in ancient Greece was comparatively low, especially in the early period of Grecian history. In the time of Solon, (that is in the early part of the sixth century before the commencement of the Christian era,) the medimnus of grain (about a bushel and a half) was sold at Athens for a drachma, or about 19 cents. From that time to the time of Demosthenes there was a gradual rise in breadstuffs, as well as in most other commodities. In the days of Socrates barley-meal was worth an obolus for 4 chœnices, or 2 drachmas the medimnus. Diogenes, the cynic, mentions about the same rate as having prevailed in his day, though, in the opinion of Bœck, this could only have been true in regard to the years when the price was lowest. The author just named infers from a passage in Aristophanes that about the ninety-sixth and ninety-seventh Olympiads (396-392 B. C.) wheat was worth about 3 drachmas a medimnus, which corresponds very well with the price of barley as just quoted; but in the time of Demosthenes, at least during periods of scarcity, 5 drachmas the medimnus, or about 65 cents a bushel for wheat, was considered a moderate price. Even barley must have sold as high as 6 drachmas the medimnus for a considerable period, as 18 drachmas, an extravagantly high rate, are referred to in the speech against Phœnippus, as being three times the former price. In other Grecian states the prices do not appear to have differed very much from those which prevailed at Athens. For example, it is stated in the second book of the *Economics*, attributed to Aristotle, that barley-meal at Lampsacus sold at 4 drachmas the medimnus, or about 52 cents a bushel; but that the state on one occasion fixed the price at 6 drachmas, in order to make a profit on the difference. During the siege of Athens by Sulla wheat was sold as high as 1,000 drachmas the medimnus, the inhabitants being reduced to the necessity of subsisting on shoes and leathern bottles. The price of bread among the Greeks appears to be unknown. Indeed, it is probable that this commodity was usually, if not always, made at home by the women of the family or the female slaves; for though Greece, or at least Athens,

was noted for the excellence of her bread, it is not clear that there were any professional bakers who manufactured that commodity for sale.

In early times the price of meat in Greece must have been very low, as in the days of Solon an ox, probably one selected for a sacrifice, was sold at Athens for 5 drachmas, or about 97½ cents. A sheep at the same period was worth only a drachma, or about 19½ cents. During the Peloponnesian war, a sucking-pig sold at Athens for 3 drachmas, or about 58½ cents. A small sheep selected for a sacrifice is estimated in Menander at 10 drachmas, or about \$1.95; and in one instance a lot of fifty-five sheep seem to have been estimated at a value of 1,000 drachmas, or about \$3.90 per capita. If these two rates be assumed to indicate that the price of sheep in the flourishing period of Athens ranged from 10 to 20 drachmas, the price of oxen may be supposed to have ranged from 50 to 100 drachmas, or from \$9.75 to \$19.50.

The price of wine in Greece was extremely low. At Athens common wine sold at 4 drachmas the metretes, which is at the rate of about 7½ cents a gallon; and an agreement is mentioned in Demosthenes in which 3,000 casks of Mendæan wine supposed to have contained a metretes each were valued at 6,000 drachmas, or at the rate of only 2 drachmas the metretes, which is less than 4 cents a gallon; yet Mendæan wine (of which, however, there may have been various qualities) was used by the Macedonians in their most sumptuous entertainments. But even in those days some wines were quite expensive. Thus the Chian wine, in the days of Socrates, sold for a mina the metretes, or nearly \$2 a gallon.

At Athens, and probably in most of the Greek cities, fish, especially the smaller kinds, were abundant and very cheap, and were a favorite article of food. Of aphuas, which were very small, a great quantity could be bought for an obolus, or 3½ cents. The larger varieties brought a better price, and such as were scarce and were sought for by the rich as delicacies were quite high. Thus a copaic eel in the time of Aristophanes cost 3 drachmas, or about 58½ cents. At Athens salted provisions, more particularly fish, were imported in large quantities, and could be bought cheap, but they were chiefly consumed by the poorer people of the country. Vegetables, such as cabbage, are said to have been cheap. A chœnix of olives, about a quart, sold for a quarter obolus, or ¼ of a cent. The best honey cost as much as 5 drachmas the cotyla, or nearly a dollar a pint, probably an exceptional price. The warm beverage which the ancients used instead of tea cost a chalcus, or ½ of an obolus a cup, and a piece of dressed meat, prepared for eating, could be bought, according to Aristophanes, for half an obolus.

Judging by the price of houses, rents among the Greeks must have been quite moderate. The orator Isæus mentions a small house, the value of which he estimates at 3 minas, or about \$59; another at Eleusis worth 5 minas, (about \$97,) and a dwelling-house at Athens worth 13 minas, or somewhat over \$250. Demosthenes mentions a house belonging to poor people, which was pledged for 10 minas, (\$194,) and a lodging-house in the country valued at 16 minas, or about \$311. A house behind the Acropolis at Athens was valued at 20 minas, and others respectively worth 30, 44, 50, 100, and 120 minas are mentioned by various writers. The mina being equal to about \$19.44, gold, the reader can easily reduce these amounts to their equivalents in United States money. The highest price mentioned is only \$2,332.80; but as the Greek writers only mention the value of houses in an incidental way, it would not by any means be safe to infer that this sum was really the price of a house of the most expensive class. It is well

known that the Athenian houses generally were of a very inferior kind, as might naturally be inferred from their values as given above. The only precise statement on the subject of house-rent occurs in *Isæus*, according to whom a house at Melite worth 30 minas, and one at Eleusis worth 5 minas, together produced 3 minas a year, or 84 per cent.; but, in the opinion of *Bœck*, this must have been below the general average, as it is considerably below the ordinary rate of interest.

In this connection it may not be amiss to refer to the value of land, which in Attica is estimated by *Bœck* at 50 drachmas the plethron, or about \$43 an acre. But of course prices must have varied greatly according to locality, and must also have undergone frequent changes in the course of history, increasing with prosperity and a rapid increase of population, and diminishing when war depopulated the country, or rendered the operations of agriculture insecure.

Fuel in Athens appears to have commanded a comparatively high price, 2 drachmas, or 39 cents, being in one case mentioned as the ordinary price of such a load of wood as could be brought into the city on the back of an ass. Charcoal was extensively used, and being lighter than wood, would cost proportionately less for transportation.

Of the price of clothing only an imperfect idea can be obtained. *Socrates*, according to *Plutarch*, considered an exomis cheap at 10 drachmas, or \$1.95. This was an upper garment worn by the common people, and had only one sleeve, the arm on the other side being left bare. The same philosopher mentions purple as selling at Athens for 3 minas, or a little less than \$60, and by this he is supposed to have meant an expensive upper garment of that color. Garments made of the byssus, which grew in Achaia, were sold for their weight in gold. A pair of Sicynian women's shoes could be bought for 2 drachmas, or 39 cents. Eight drachmas, or \$1.56, is once mentioned as the price of a pair of men's shoes; but this is supposed to refer to some ornamental kind much dearer than those commonly in use.

In regard to the aggregate cost of living, *Bœck* estimates that at Athens the poorest family, comprising as many as four free adults, if they did not live on bread and water, must have spent, upon an average, from 390 to 400 drachmas, or from \$77 to \$79 a year; and he thinks that "if, in the time of *Socrates*, four persons could live upon 440 drachmas a year, they must have passed a very wretched existence." Elsewhere he says that "in the flourishing times of the state one person could live but moderately upon 2 or even 3 oboli a day;" so that a workingman, who had to support a family on 4 oboli a day, must have earned but a scanty subsistence. Allowing two hundred and fifty working-days to the year, 4 oboli a day would amount to only 166½ drachmas a year, which is less than half the sum which *Bœck* thinks necessary even to "a very wretched existence."\*

But the number of wage-laborers in Greece was comparatively small, a great majority of the working people being, in the condition of slaves or serfs. In war the life of the prisoner was considered as forfeited, and if the captor spared him it was usually to devote him to a life of servitude, a fate which often befell persons who, in their own country,

\* In this connection it may not be amiss to notice the conclusion of the able French author, *Dureau de la Malle*, who, after a review of the prices of commodities, the rates of wages, and the pay of troops in Greece and in Asia, remarks that the value of the precious metals in ancient times, as compared with military service, labor, and subsistence, was much smaller than has generally been supposed. "For example," says he, "the 3 oboli allowed for the subsistence of a hoplite are within 4 centimes (four-fifths of a cent) of the amount now allowed for the subsistence of a terrace-maker, a mason, or a carpenter in two-thirds of the departments of France."

had occupied stations of honor and influence. Many persons were also sold into slavery by kidnappers, who practiced their nefarious trade along the shores of the Mediterranean, as similar miscreants in modern times have done on certain portions of the African coast. As luxury increased among the Greeks the demand for slaves was such that a regular commerce in these unfortunate beings was kept up, the enterprise of the slave-traders leading them to distant parts, particularly to the southern shores of the Black Sea, where slaves could be had in great numbers. The first Greeks who engaged in this trade are said to have been the Chiaus, who also pursued the infamous business of making eunuchs for the eastern market. A just retribution ultimately fell upon them, when Mithridates, of Cappadocia, having conquered the island, delivered them up to their own slaves to be carried away captive into Colchis.

In Sparta the Helots outnumbered the citizens by about five to one, and Bœck estimates the ratio of slaves to citizens in Attica at very nearly four to one.\*

According to an enumeration made during the archonship of Demetrius Phalerus, about 309 B. C., there were 21,000 citizens, 10,000 resident aliens, and 400,000 slaves. Bœck, however, supposes, apparently with very good reason, that this number of slaves includes women and children, whereas the number of citizens and of resident aliens includes only adult males. "This number of slaves," says the author just cited, "cannot appear too large, if the political circumstances of Attica are taken into consideration. Even among the poorer citizens it was common to have a slave for the care of household affairs. In every moderate establishment many were employed, such as grinders, bakers, cooks, tailors, errand-boys, or to accompany the master and mistress, who seldom went out without an attendant. Any one who was expensive and wished to attract attention took perhaps three attendants with him. We even hear of philosophers who kept ten slaves. Slaves were also let out as hired servants. They performed all the labor connected with the care of cattle and agriculture; they were employed in the working of the mines and furnaces; all manual labor and the lower branches of trade were in a great measure carried on by them; large gangs were employed in the numerous workshops for which Athens was celebrated; and a considerable number labored in merchant-vessels and in the fleet. Not to enumerate many instances of persons who had a smaller number of slaves, Timarchus kept in his workshop 11 or 12; Demosthenes' father 52 or 53, besides the female slaves in his house, and Lysias and Polemarchus, 120 each. Plato expressly remarks that the free inhabitants had frequently 50 slaves, and the rich even more. Philémonides had 300, Hipponicus 600, and Nicias 1,000 slaves in the mines alone. These facts prove the existence of an immense number of slaves."

It is stated by Timæus that Corinth once had 460,000 slaves, and Aristotle is authority for the assertion that the small island of Ægina had contained as many as 475,000. That the Corinthians really possessed a very large number of slaves is indicated by the fact that they were sarcastically called "chœnix-measurers"—an appellation based on the common practice of measuring out grain to the slaves by the chœnix, which contained a fraction less than one quart.

Among the Locrians and Phocians it is said slavery did not exist in early times, but at a later day Mnason, a Phocian, and a friend of Aristotle, is reported as having purchased a thousand slaves for his own

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\* Public Economy of Athens, book i, chap. vii., p. 36.

service. His course, however, did not meet the approbation of his countrymen, who accused him of lavishing upon his slaves what would have supported an equal number of free persons.

In Sparta the citizens were forbidden to practice any trade, and, indeed, the discipline imposed by the laws of Lycurgus would have left them little time for any other occupation had they been permitted to follow it. There were, however, several classes of free inhabitants who could carry on commerce or industry, but the agricultural labor in the country throughout Laconia, as well as the menial service in the households of the city of Sparta, was left to the Helots, whose ancestors were probably Achaian Greeks who occupied the Laconian territory previous to its conquest by the Spartans, by whom they were reduced to servitude.

The following sketch of this class is taken from Grote's History of Greece :

The Helots of Laconia were coloni, or serfs, bound to the soil, who tilled it for the benefit of the Spartan proprietors certainly—probably of Perieki\* proprietors also. They were the rustic population of the country, who dwelt not in towns, but either in small villages or in detached farms, both in the district immediately surrounding Sparta, and around the Perieki Laconian towns also. Of course, there were also Helots who lived in Sparta and other towns, and did the work of domestic slaves, but such was not the general character of the class. We cannot doubt that the Dorian conquest of Sparta found this class in the condition of villagers and detached rustics; but whether they were dependent upon pre-existing achæan proprietors, or independent, like much of the Arcadian village population, is a question which we cannot answer. \* \* \*

The distinction between a town and a village population seems the main ground of the different treatment of Helots and Perieki in Laconia. A considerable proportion of the Helots were of genuine Dorian race, being the Dorian-Messenians, west of Mount Taygetus, subsequently conquered and aggregated to this class of dependent cultivators, who, as a class, must have begun to exist from the very first establishment of the invading Dorians in the district around Sparta. \* \* \*

The Helots lived in the rural villages as *adscripti glebæ*, cultivating their lands, and paying over their rent to the master at Sparta, but enjoying their homes, wives, families, and mutual neighborly feelings apart from the master's view. They were never sold out of the country, and probably never sold at all; belonging not so much to the master as to the state, which constantly called upon them for military service, and recompensed their bravery or activity with a grant of freedom. Meno, the Thessalian of Pharsalus, took out three hundred Penestæ of his own to aid the Athenians against Amphipolis. These Thessalian Penestæ were in many points analogous to the Helots, but no individual Spartan possessed the like power over the latter. The Helots were thus a part of the state, having their domestic and social sympathies developed, a certain power of acquiring property,† and the consciousness of Grecian lineage and dialect—points of marked superiority over the foreigners who formed the slave population of Athens or Chios. They seem to have been no way inferior to any village population of Greece; while the Grecian observer sympathized with them more strongly than with the bought slaves of other states; not to mention that their homogeneous aspect, their numbers, and their employment in military service, rendered them more conspicuous to the eye.

The service in the Spartan house was all performed by members of the Helot class; for there seem to have been few, if any, other slaves in the country. The various anecdotes which are told respecting their treatment at Sparta, betoken less of cruelty than of ostentatious scorn,‡ a sentiment which we are no way surprised to discover among the citizens at the mess-table. \* \* \*

The well-known hatred and fear entertained by the Spartans towards their Helots, has probably colored Plutarch's description of the Krypteia, so as to exaggerate those unpunished murders which occasionally happened into a constant phenomenon with

\* "Perieki" literally means "dwellers around," and appears to have been used to designate the free proprietors residing in the Laconian towns outside of the city of Sparta.

† Kleomenes the Third offered manumission to every Helot who could pay down five Attic minæ; he was in great immediate want of money, and he raised by this means five hundred talents. Six thousand Helots must have been in a condition to find five minæ each, which was a very considerable sum.

‡ Such is the statement, that Helots were compelled to appear in a state of drunkenness in order to excite in the youths a sentiment of repugnance against intoxication.

express design. A similiar deduction is to be made from the statement of Myrôn of Priène, who alleged that they were beaten every year without any special fault, in order to put them in mind of their slavery; and that those Helots whose superior beauty or stature placed them above the visible stamp of their condition, were put to death; while such masters as neglected to keep down the spirit of their vigorous Helots were punished.

The manumitted Helots did not pass into the class of Perieki—for this purpose a special grant of the freedom of some Perieki township would probably be required—but constituted a class apart, known at the time of the Peloponnesian war by the name of Neodamôdes. Being persons who had earned their liberty by signal bravery, they were, of course, regarded by the ephors with peculiar apprehension, and, if possible, employed on foreign service, or planted on some foreign soil as settlers. In what manner these freedmen employed themselves we find no distinct information; but we can hardly doubt that they quitted the Helot village and field, together with the rural costume (the leather cap and sheepskin) which the Helot commonly wore, and the change of which exposed him to suspicion if not punishment, from his jealous masters. Probably they, as well as the disfranchised Spartan citizens, (called Hypomeiones, or inferiors,) became congregated at Sparta, and found employment either in various trades or in the service of the government.

In making the statement that Helots were the property of the state, and were never sold out of the country, Grote is at variance with some other authors, who, on this point at least, appear to have been equally well informed. St. John, in his *Manners and Customs of Ancient Greece*, vol. iii, p. 39, says:

They [meaning the Helots] were the property of individuals, but the state reserved to itself the right of enfranchising them and preventing their emancipation, lest persons should be found who, like Marcus Porcius, Cato, and the Dutch at the Cape, would sell or give them their liberty when too old to labor. But to sell them out of the country, says Mr. Müller, "was not in the power even of the state." It is true there was an ancient law prohibiting the exportation of the Helots, but the same authority which enacted that law could have abrogated it. Had Sparta then chosen to convert her Helots into an article of traffic, who or what was to prevent her? Since she arrogated to herself the right of beating, maiming, and putting them to death, though completely innocent, is it to be supposed that, had it suited her policy, she would have hesitated to sell them? And after all, are we quite certain that these unhappy people were not frequently sold into foreign lands? On the contrary, we find that a regular trade was carried on in female Helots, who were exported into all the neighboring countries for nurses. Thus it appears that the state both had and exercised the power to convert its serfs into merchandise.

That the males also were not exported like cattle, than which they were far worse treated, was owing simply to the calculation that it would be more profitable to retain them; for as the Spartans possessed estates which personally they never cultivated, the Helots, who equally belonged to them, were stationed throughout the country upon those estates, which it was their business to till for the owners. To live it was of course necessary that they should eat, and therefore a portion of the produce was abandoned to them—according to Tyrtæos, the half, a division which must have borne very hard upon them, since their numbers were five times greater than those of the Spartans.

The following is a portion of Plutarch's passage in relation to the Crypteia, to which Mr. Grote alludes with an appearance of incredulity: According to this ordinance the rulers, selecting from among the youths those most distinguished for ability, sent them forth armed with daggers, and furnished with the necessary provisions to scour the country, separating and concealing themselves in unfrequented places by day, but issuing out at night and slaughtering all such of the Helots as they found abroad. Sometimes, indeed, they fell upon them while engaged in their rural labors in the fields, and there cut off the best and bravest of the race. In "The Laws" of Plato a Spartan is reported as saying, "There is also among us what is called the Crypteia, the pain of undergoing which is scarcely credible. It consists of going barefoot in storms, in enduring the privations of the camp, performing menial offices without a servant, and wandering night and day through the whole country." The omission to mention here the slaughter of Helots as the object



of these wanderings and their attendant privations, affords no reason to doubt the accuracy of Plutarch's statement, since a Spartan, speaking on this subject, would naturally look at it from a Spartan stand-point, and would be very likely to keep the more odious features of the *Crypteia* in the background. The extreme jealousy, and even barbarity, of the Spartans toward the Helots is attested by a number of the Greek writers, including Plato, Isocrates, and Aristotle, as well as Plutarch. Myron of Priene, in a work preserved by Athenæus, says: "The Helots perform for the Spartans every ignominious service. They are compelled to wear a cap of dog-skin, to bear a covering of sheepskin, and are severely beaten every year without having committed any fault, in order that they may never forget they are slaves. In addition to this, those among them who either by their stature or their beauty raise themselves above the condition of a slave are condemned to death, and the masters who do not destroy the most manly of them are liable to punishment." Grote himself, while throwing doubt upon Plutarch's account of the *Crypteia*, gives, without questioning its accuracy, the account of the infamous massacre which occurred in the eighth year of the Peloponnesian war, when upward of two thousand of these bondmen fell victims to the same jealous policy to which the *Crypteia* is attributed. In order to select from the ranks of the Helots those whose bravery might render them most dangerous to the state, a proclamation was issued offering emancipation to such as had most distinguished themselves in battle, and calling upon those who thought themselves entitled to it to come forward and claim the promised boon. Upward of two thousand presented themselves, were crowned with garlands, and escorted to the temples as if to complete the ceremony which was to make them free; but they never emerged, nor has the fate which overtook them ever been revealed.

Among the Athenians the treatment of slaves appears to have been comparatively humane. There was a law under which a slave could indict his master for assault and battery. Demosthenes has preserved a law which empowered any Athenian not laboring under legal disability to denounce to the *Thesmothetæ* the person who offered violence to man, woman, or child, whether slave or free; and there are numerous examples of men who suffered death for crimes against bondmen. Athenian slaves, moreover, enjoyed the privilege of purchasing their own freedom, whenever they could save enough out of the *peculium*, allowed them by law, to offer their owners an equivalent for their services. Yet even in Attica the slaves were at best subjected to many petty tyrannies and humiliations. Thus they were not allowed to wear long hair, or a garment with two sleeves; to drink wine except at the festival of *Pithegia*; to anoint themselves, as in the *gymnasia*, or to be present at certain religious ceremonies in which freemen could participate. The Athenian slaves were also liable to corporal punishment, sometimes in the form of whipping at the cart-tail by order of a magistrate, but often also at the discretion of their owners. The slaves in the mines are said to have worked in fetters, but this may have been a temporary punishment consequent upon a revolt. The right of asylum in the temples of Theseus and the Eumenides was one of the defenses which the Athenian slave enjoyed against the tyranny of a cruel master. This right, however, is supposed to have extended only from the time of the slave's flight until the next new moon, when the slave auction was held and the refugee had the chance of being purchased by a more humane master.

In regard to the price of slaves, there is a passage in the *Memorabilia*

of Xenophon, from which it appears that some were hardly worth half a mina, (\$9.87;) others would bring as much as 2 minas, while others sold for 5 or 10 minas; and Nicias, the son of Niceratus, is said to have paid a talent (\$1,184.62½ in gold) for an overseer of the mines. The slaves employed as laborers in the mines and those who worked in the mills had the lowest value, ranging from a mina to a mina and a half, or approximately in our money from \$20 to \$30. The price of ordinary house slaves was but little higher. Demosthenes mentions a valuation of two such slaves at 2½ minas each as being too high, and in one place alludes to the sale of a slave of this kind for 2 minas. The father of this orator had thirty-two or thirty-three iron-workers, or sword-cutlers, the poorest of whom were worth over 3 minas, and the best from 5 to 6 minas. He had also twenty chair-makers, whose aggregate value was 40 minas, or an average of 2 minas each.

The difference of value between slaves who could perform only common labor and those who were skilled in some trade, probably corresponded in the main with the difference between the amounts which these classes respectively could earn for their owners. A slave in the mines yielded a profit of only one obolus (about 3 cents) a day; a workman in leather yielded 2 oboli, and a foreman of a workshop, 3 oboli per diem. The thirty-two or thirty-three iron-workers or sword-cutters of Demosthenes' father were worth an aggregate sum of 190 minas, and annually yielded a net profit of 30 minas, or 15½ per cent. on their value; while the twenty chair-makers, worth 40 minas, are said to have yielded a net profit of twelve minas, or 30 per cent. per annum. It is probable, however, that this disparity was exceptionally large, and was due to temporary causes affecting the relative activity of the two trades in question. Speaking generally, the profit on the labor of a slave must have reached a high percentage on his value, because the owner would expect to be compensated for his capital at the customary high rates of interest, and moreover would require indemnity for the danger of loss by the death, decrepitude, or superannuation of the slave, or of his escape from servitude. Of this last there was especial risk in time of war, particularly in the case of slaves that were with the armies; and this led to the institution of an insurance system first established by a Macedonian grandee named Antigènes, who, for a yearly contribution of 8 drachmas, undertook to guarantee to the owner the price of any slave who was in the army, in case he should escape.

There were at Athens two classes of slaves, those belonging to the state and those of private individuals. The former were employed as vergers, messengers, apparitors, scribes, clerks of public works, inferior servants of the gods, and in other services considered unworthy of freemen. Most of the temples of Greece, like the ecclesiastical establishments of Europe in the early part of the Middle Ages, possessed a great number of slaves or serfs, who cultivated the sacred domains, performed various humbler offices of religion, and generally executed the bidding of the priests. Among the Athenians, the slaves of the republic, who were generally captives taken in war, received a careful education, and were sometimes intrusted with important duties. Out of their number were selected the secretaries who in time of war accompanied the generals and treasurers of the army, and made exact minutes of their expenditure, in order that when on their return these officers should come to render an account of their proceedings, their books might be compared with those of the secretaries.

The vocabulary of servile relations among the Greeks was very copious. There was a special name for a slave bought with money, one for a male

slave born in the house, and another for a female; one for a slave born of a slave, and another for a slave born free. Besides these there were many names denoting the particular employment to which a slave was assigned.

When a newly-purchased slave was first brought into the house he was placed before the hearth, where his future master, mistress, and fellow-servants poured baskets of ripe fruit, dates, figs, filberts, walnuts, &c., upon his head to intimate that he was come into the abode of plenty. He then joined with his fellow-slaves in feasting on the bounties thus showered upon him, and the occasion was converted into a general merry-making.

The food of slaves, as might be expected, was usually of an inferior quality. Thus the dates grown in Greece, which ripened but imperfectly, were appropriated to their use, and if wine was given them, it was a kind made of the husks of grapes, which after they had been pressed were laid to soak in water and then pressed again. The indignities to which slaves were sometimes subjected is indicated by the practice of some parsimonious masters, who compelled them, while employed at the kneading-trough, to wear a broad collar like a wheel, which prevented them from eating the dough by rendering it impossible for them to bring their hands to their mouths.

Among the employments of female slaves were included the turning of the mills, carrying water, and sometimes the still more laborious work of cutting wood, besides the ordinary domestic occupations. A male slave usually attended his master upon a journey to carry his baggage, both traveling on foot. Some masters went accompanied by two such slaves, but this was considered a mark of luxurious habits.

There are some instances of communities, by express stipulation, entering formally into a state of slavery, but with the reservation of certain rights. Thus the Maryandiniæns submitted to the citizens of Heraclea, to be their perpetual serfs, stipulating only that they should always be furnished with the necessaries of life, and never be sold out of the country. The penestæ of the Thessalians also appear to have assumed their servile status by a formal compact which reserved to them important privileges, among which was that of owning property. Many of them attained considerable wealth, and, according to Euripides, they were sometimes of very ancient families.

In Crete the serfs or slaves were divided into several classes. Those of the cities were called Chrysonetæ, or "bought with gold;" those of the country were called Aphamiotæ, from their being bound to the Aphamiæ, or estates of the landed proprietors. The latter are supposed to have been the descendants of the aboriginal inhabitants of the island, whom the Dorian invaders had reduced to servitude, and were sometimes called Clarotæ, either from the fact that they had been divided among the conquerors by lot, or else from being located on the lots of the citizens, which were called Claroi. The Mnoi or Mnoa were bondsmen belonging to the state, and cultivated the public lands. They were compelled to furnish the body of the citizens a certain sum of money, as well as a portion of their flocks and herds and agricultural produce. They were prohibited from carrying arms, and excluded from the gymnasia.

In the Cretan city of Cydonia, during certain festivals of Hermes, the slaves were left masters of the place, and had the right to chastise with whips any free citizen who intruded himself among them. In other parts of Crete customs prevailed similar to those of the Roman saturnalia, the masters waiting upon the slaves as domestics, while the

latter caroused and took their ease in the enjoyment of the Hermæan festival. On the whole, it seems probable that the treatment of slaves in Crete was milder than in any other Doric state.

The serfs of the Syracusans were called *Killicyrii*, and were so numerous that the expression "more in number than the *Killicyrii*" passed into a proverb. They appear to have lived in the country, cultivating the land like the Cretan *Mnoa*, until at last their numbers inspired them with courage, when they assaulted and drove out their masters, retaining possession of Syracuse.

The *Katanocophori* were kept in bondage by the people of Sicily, who compelled them to assume a mean and squalid appearance, and to wear sheepskin cloaks, in order that they might be deterred from entering the city by the ridicule of the rabble, to which this uncouth covering would expose them.

The serfs of the Arcadians were called *Prospelatæ*, and are said to have numbered about three hundred thousand. Their treatment appears to have been more lenient than that of persons of the same class in many other parts of Greece, since they are found at public festivals sitting at table with their masters, eating of the same food and drinking from the same cup.

Speaking in general terms, the life of a slave in Greece would appear to have formed no exception to the general experience of mankind as to the condition of a servile class. Sir William Gell's account of the residence of a wealthy Greek, "surrounded by the stable and ranges of low buildings, occupied by the servants and cattle," recalls to mind the rows or clusters of negro shanties near the spacious mansions of the wealthy southern planter; and the practice of measuring out to the slaves a daily or weekly allowance of food, which was followed upon many southern plantations, had its counterpart among the Greeks, whose white slaves were probably less liberally fed than the colored slaves of the South. According to Bœck, their diet consisted almost wholly of grain, (chiefly barley,) of which the usual allowance was a *chœnix*, or a little less than one quart per diem. Aristophanes says that the male domestics of a Greek household had one common sleeping apartment, called the *koiton*, and the beds of servants generally consisted of mats made of rushes, broom, and the down of reeds. As in our own Southern States, so in Greece, slaves occasionally lived apart from their masters, working on their own account, and paying to their master a portion of their earnings, and sometimes they were able to save enough to purchase their freedom. The aggregate number of freedmen in Greece was probably much greater in proportion to the population than in the South, where the barrier of race distinction was added to the ordinary obstacles to the elevation of the subject class.

One of the most remarkable events in the history of the working classes of Greece is the memorable measure of Solon, known as the *Seisachtheia*. When the great Athenian lawgiver came to the archonship in the year 594 B. C., he found the majority of the rural population of Attica weighed down with debt and despondency. The rich were proprietors of the greater part of the soil, which the *Thetes* cultivated as dependent tenants, paying the proprietors a stipulated part of the produce. In these payments they had fallen greatly in arrears, and thus, as well as through loans of money, had sunk so deep in debt that it was not possible for them to extricate themselves. The law gave the creditor power over the body of the debtor, as well as those of his minor sons and daughters, and thus large numbers of the *Thetes* were falling from freedom into slavery. At the same time a great number of the smaller

properties of Attica were heavily mortgaged, and marked by stone pillars, inscribed with the name of the lender and the amount of the loan. These mortgages were in many instances foreclosed, and not only were the mortgaged lands taken from their proprietors, but the latter themselves, together with their families, were frequently reduced to slavery. On some this unhappy lot had fallen through the unjust decisions of corrupt judges, and the conduct of the rich in all their dealings with this class of people is described as having been thoroughly unprincipled and rapacious. To such a pitch had this evil arisen just before Solon became archon, that the law could no longer be enforced. It was under such circumstances that the celebrated lawgiver resorted to the measure above named. "The relief which it afforded," says Grote, "was complete and immediate. It canceled at once all those contracts in which the debtor had borrowed on the security of either his person or of his land; it forbade all future loans or contracts in which the person of the debtor was pledged as security; it deprived the creditor in future of all power to imprison or enslave or extort work from his debtor, and confined him to an effective judgment at law authorizing the seizure of the property of the latter; it swept off all the numerous marked pillars from the landed properties in Attica, and left the land free from all past claims; it liberated and restored to their full rights all those debtors who were actually in slavery under previous legal adjudication, and it even provided the means—we do not know how—of repurchasing in foreign lands, and bringing back to a renewed life of liberty in Attica, many insolvents who had been sold for exportation. And while Solon forbade every Athenian to pledge or sell his own person into slavery, he took a step further in the same direction, by forbidding him to pledge or sell his son, his daughter, or an unmarried sister under his tutelage—excepting only the case in which either of the latter might be detected in unchastity."

One of the most beneficent provisions of the above law was that which forbade all future loans or contracts in which the person of the debtor was pledged as security; but although this remained in force in Attica, the lending of money upon the body of the debtor continued to be practiced in other Grecian states; while even the pledging of agricultural implements was forbidden.

An interesting subject to treat in this connection would be the provision made for the poor in the Grecian states. It will be sufficient, however, to say that in Athens, at least, the habit of depending on the state for assistance appears to have been one of the first decided symptoms of the decay of the commonwealth; while there, as well as elsewhere, and particularly in Sparta, the concentration of wealth in few hands, and a great increase in the number of the dependent poor, were quickly followed by a decline in the old manly qualities of the people, and diminished at once their ability and their disposition to defend their civil liberty and their national independence.

#### LABOR IN ROME.

What has been said as to the condition of the industrial arts in Greece will apply in the main to their condition in Italy during the history of ancient Rome. From the rude state in which they are found in the early days of the city, they progressed in the course of centuries to a high development; and if the Romans themselves possessed in a very inferior degree the artistic faculty for which the Greeks were so distin-

guished, they enjoyed in industry and art, no less than in philosophy and letters, the assistance of Hellenic genius.

It is impossible to treat of labor and the condition of the working-classes among the Romans, without referring to the political status of the plebeians, the history of whose struggles for a humane law of debtor and creditor, for a fair division of the public lands, and for the prerogatives of citizenship, is virtually the history of the early struggles of the working-people of Rome for the rights of men.

The members of this class probably comprised the descendants of conquered tribes originally inhabiting the district in which Rome was founded, as well as those in the surrounding region, who at a somewhat later date voluntarily placed themselves under the powerful protection of that city; and in early times, particularly under the kings, they were doubtless subjected to severe oppression. They were admitted to no share in the government, or in the social and religious rights which belonged to the privileged order; but, from the earliest times of which we have any account, they were distinguished from the slaves of a Roman household by the possession of personal freedom, the right to hold property, and the liberty (which was denied to the aristocratic order) to exercise handicraft trades for their own benefit. Their immunities, however, were at first secured to them, not by law, but by the protection of the patricians, toward whom they occupied, individually, the position of clients. Thus every plebeian was originally the client or dependent of some patrician; but gradually they acquired recognized civic rights, and the status of "client" was transferred to subjects of more recent acquisition, to whom no rights of citizenship had as yet been accorded.

The sixth of the kings, Servius Tullius, is said to have divided the lands which he had won from the Veians and Etruscans among the plebeians, whom he also sought to elevate politically by the creation of a new general assembly—that of the *centuries*, in which both classes should be comprehended. The plebeians, however, do not appear to have acquired any material increase of political power from this measure. In the early years of the republic the patricians generally figure as men of family and civic honors, residing in the city, but holding domains in the territory belonging to the state, which at this period appears to have been monopolized by the patrician order. The plebeians at the same time appear to have been small farmers and tradesmen, mechanics, &c., while they also, as in earlier times, contributed their full quota to the armies of the state. Their poverty often reduced them to the necessity of borrowing from their patrician superiors, whose incomes were in many cases largely derived from usury. The creditor had the power to enslave, imprison, scourge, starve, or even take the life of the debtor who failed to meet his obligations; and if there were several creditors of one person, they could, if they chose, divide his body among them. Instances of extreme cruelty, such as beating, imprisonment in loathsome dungeons, and slow starvation, were not infrequent, while many unfortunate debtors were sold into slavery or reduced to servitude under their creditors. The harshness of the law, and of the manner in which it was enforced, seemed all the more outrageous in view of the fact that the inability of the debtor to meet his engagements often arose from his having to neglect his own affairs while performing military service for the state in wars which the patricians had provoked. It was a case of this kind which formed the immediate occasion for the secession of the plebeians to the Mons Sacer, sixteen years after the expulsion of the kings; that is, A. U. C. 260. A veteran who had served his country with honor and lost his property in the wars, having been scourged by

his creditor, exhibited his gory back to the populace, whose indignation first found vent in the summary release of those who were enslaved for debt, and then in the manner above indicated. At the point mentioned, which was distant two miles from Rome, at the confluence of the Tiber and the Anio, the plebeians, who had chosen themselves generals, and marched out under arms, threatened to settle and found a new city. The patricians were at first disposed to set them at defiance, but in the end listened to wiser counsels, and decided to make terms with them rather than allow the commonwealth to be split asunder. It is believed that on this occasion was founded the Tribune of the Plebs, the people acquiring the right of nominating two tribunes annually, who were to have a veto upon the decrees of the senate and to protect the personal liberty of the commons, for which purpose they were to keep their houses open day and night to receive every application for assistance.

According to Livy and Cicero, this secession did not result in a remission of debts or in a change of the law of insolvency; yet it is noticeable that the relation of debtor and creditor no longer forms the chief subject of contention between the two orders, from which it seems probable that some amelioration in the condition of the former class was secured. Nearly half a century later a law of the Twelve Tables provided that the debtor should be allowed thirty days within which he might, through the help of his friends, or the pity of the populace, acquire the means of meeting his obligations. At the end of this period, if he had not succeeded in obtaining the required amount, he was delivered to the creditor, who put him in chains and brought him before the prætor on three consecutive market days, the amount of his debt being published, in the hope that some rich spectator would take pity on him and discharge his debt. In the absence of such relief he was sold into slavery, or his head might be exacted as the forfeit of his poverty. Gradually, however, the extreme severity of the law was relaxed, and in the year of the city 424 it was decreed that in future the person of no Roman citizen should be liable to slavery, but that his property alone should be subject to seizure. The debtor might, however, be committed to prison, and to avert this fate many voluntarily became the slaves of their creditors, though, probably, with certain reserved rights obtained by special stipulation.

The distribution of land, which in all places and times has had the most intimate relation to the well-being of the working classes, was long the subject of fierce contention between the patricians and plebeians at Rome; and the members of the former class did not scruple to resort to the most extreme measures in defense of their monopoly. As the republic extended her dominions a portion of the territory of each conquered tribe was colonized by Roman citizens, who were thus bound by their interests, as well as inclined by sentiment, to defend the new acquisition. Considering how circumscribed was the original territory of Rome, this mode of disposing of her surplus population must have contributed much to the industrial prosperity of her people, at the same time that it formed a most important element in the polity by which she consolidated her growing power. The following account of the manner in which the Romans disposed of the lands acquired from the conquered is taken from Fosbroke's "Treatise on the Arts, Manufactures, Manners, and Institutions of the Greeks and Romans:—"

These lands were not gratuitous; if the colonist had not sufficient money to purchase the portion which fell to him he farmed it for the benefit of the commonwealth, or of some superior tenant. But this regulation regarded the cultivated lands; those which were waste, or which lay on an exposed frontier, were generally gratuitously



conferred; yet like the rest they were subject to the burdens of the state; thus they annually yielded one-fifth of the produce of the trees, one-tenth of the grain, and a certain tax for cattle. The quantity of this public land in each colony varied according to the conditions on which the colony was originally secured. If the natives had voluntarily submitted, two-thirds of the territory were generally left to them, one-third only being divided among the victors. In no case, however, do the people appear to have possessed more than seven *jugera* each;\* where the territory was much circumscribed, only two; the surplus remained at the disposal of the state, and was either farmed for its benefit, or, if more defenders were necessary, it was assigned to new settlers. In general, however, there was always a considerable portion unassigned. For what follows, the reader will be prepared. This surplus was soon engrossed by the patricians, who farmed the revenues arising from it, viz, who offered so much for the produce of the soil for *five* years, the period for which the public lands were invariably let; at the end of the five, they had only to renew the contract. If to this we add that by judicial forfeiture, in default of issue, and through other causes, the portions of many among the resident coloni would devolve to the state, we shall not be surprised that the territory which the patricians took such care to engross was greatly augmented. In the same degree we shall be prepared to expect the diminution of the allotments originally made to the *coloni*. As the members of each family multiplied, as the children were admitted to co-inheritance, the portion originally held by each (it was two *jugera* in the immediate vicinity of Rome, and seven in the more distant colonies) would be split until the multiplied portions would be inadequate to the support, not merely of a family, but of an individual. We cannot, therefore, wonder at the complaints which, from the third century after the foundation of Rome, were so loudly uttered, that the patricians held most of the public land, while the plebeians were generally reduced to utter destitution. Nor was this the worst. The patricians, as the heads of government, showed a shameful partiality to their own order by exempting their lands from the burden of the one-tenth to which they were liable, while those of the plebeians remained subject to it. \* \* Among the *agri* (public lands) there were many distinctions corresponding to their nature and uses. The *ager campascuus* was the common or pasture land to which we have alluded; the *ager decumanus* was the titheable land, that is, the public land subject to the annual tenth of produce required by the state. All Sicily was in this predicament. "*Omnis ager Sicilia decumanus est*," says Cicero. The *ager effatus* was the place where the Augurs unfolded the fates. The *ager occupatorius*, which was vacant, whether in virtue of default by inheritance or by revocation, or by judicial forfeiture, might be occupied by any one who farmed it from the state, or to whom the state conceded it. In fact the highest bidder was generally preferred at the end of a *lustrum*, and would indeed always have been preferred had not the more powerful nobles combined to intimidate other bidders, and, consequently, to obtain it on their own terms. The *ager vestigalis* was the land which paid money-rent, on the condition of receiving the produce in kind; the tenth of the corn, the fifth of the orchards, trees, cattle, wool, &c. Any one who offered at a public auction the highest price during five consecutive years for the produce of a district comprised in the limits of the agrarian law, was, under ordinary circumstances, the successful bidder. He paid in money for the produce yielded by the land, and for the privilege of disposing of it at pleasure; and he always gave sureties for the punctual fulfillment of his engagement.

In the year of the city 269, the first agrarian law was proposed and carried by Spurius Cassius, but its execution was thwarted by the patricians, who ultimately wreaked their vengeance on its author by an accusation that during his consulship he had made too favorable terms with the national enemies, and had sought to make himself tyrant of his native city, upon which charges he was declared guilty, scourged, and beheaded. The tribune Genucius (A. U. C. 286) made an effort to secure the same end—a more equitable distribution of the public lands—and presented an impeachment against the consuls for having frustrated the provisions of the law; but he, too, appears to have fallen a victim to patrician malice, being suddenly found dead in his bed. In the account which Livy gives of the agrarian agitation of this period, he represents the tribunes as proposing a series of laws, all of which were successfully resisted by the patricians, whereas Dionysius of Halicarnassus states that during the consulship of Spurius Cassius the senate passed a general law for the division of the public lands, but that the

\* The *jugum* was 23,000 square feet, or about  $\frac{1}{4}$  of an acre.

successive consuls would never carry it into effect. He represents that a solemn compact between the senate and the plebeians was broken, and that the efforts of the tribunes were exclusively directed toward procuring the execution of the existing law. It is evident, however, that the plebeians continued to gain strength, and in the year of the city 377, (B. C. 377,) the tribunes, Licinius and Sextius, were able to carry an agrarian law by which it was provided that no citizen should hold (or farm the revenues of) more than 500 *jugera* (about 320 acres) of the public lands. From those who held more than this quantity the *ædiles* were to take the surplus and divide it among the plebeians at the rate of seven *jugera* to each family. The same law limited the number of slaves who might be employed on the lands so divided, and enjoined on the holders of land the employment of Italians and free-men. It also enacted that no citizen should turn into the common pasture more than one hundred head of cattle, or five hundred of sheep, &c., each to be subject to a certain tax payable to the public treasury.

It was during the same year that the plebeians achieved the great charter of their liberties in the decree that one of the consuls should always be a member of their order; but it was not until the year 388 that a plebeian consul was formally appointed, Sextius himself being the first to hold the office. The triumph of the plebeians became still more complete in the year 415, when the plebeian dictator, Publius Philo, carried enactments making the decrees of the popular assemblies (*comitia* of the tribes) obligatory on the whole people,\* permitting both of the consuls as well as the prætors to be plebeians, and requiring that the censors should be chosen, one from each class.

From this time the two orders were substantially merged into one; but as the dominion of the republic was extended over adjacent states, the newly-conquered Italians fell into a position somewhat analogous to that which the plebeians had formerly occupied, though distinguished from the latter by very marked differences. Indeed the military necessities of the state dictated a policy calculated to consolidate the inhabitants of the peninsula into one nation, and inclined the Romans to advance them gradually to a participation in civic rights.

The three centuries intervening between the secession of the Plebs to the Mons Sacer, (A. U. 260,) and the entrance of the legions into Asia eleven years after the close of the second Punic war, embrace the finest portions of Roman history, when considered with reference to the virtues of the people. During this period there were, indeed, instances of luxury and extravagance, but labor was held in honor, and poverty was often dignified with the highest stations. "If, on the one hand," says Duruy, (*Histoire des Romains*), "a Rufinus must be degraded from the senate, (B. C. 275,) notwithstanding his two consulships, a dictatorship, and a triumph, for possessing ten pounds of silver plate when he was allowed no more than eight ounces; if the consul Posthumius compelled 2,000 legionaries to reap his corn, or to clean his woods; Attilius Serranus, on the other, received the consular purple behind his plow; Regulus, though twice consul, possessed no more than one little field in the barren district of Pupinia; and Curius, like Fabricius and Æmilius Papus, prepared his simple meal with his own hands, in wooden vessels. The same Curius refused the gold of the Samnites; Fabricius that of Pyrrhus; and Cineas, (the ambassador of the latter,) introduced in the

\* It is held by some authorities that these decrees or *plebiscita* did not acquire the full force of laws until the adoption of the *Lex Hortensia*, in the year 466, or B. C. 288; and it is at least evident that this measure either gave to the *plebiscita* increased weight, or enlarged the number of objects with reference to which they might be adopted.

senate, imagined that he saw before him an assembly of kings. \* \* \* There was union because there was equality; because an aristocracy of blood was no longer recognized, nor was more honor paid to that of fortune." Cincinnatus, once consul and twice called to the dictatorship, after delivering his country from her enemies, retired to his little tract of land, (only four *jugera* in extent,) upon which he maintained himself by the labor of his own hands. Fabricius, consul and victorious general, cultivated his one little field without the assistance of slaves; and Manius Curius, the conqueror of Pyrrhus, refused the share of booty and the fifty *jugera* of land offered by the people in gratitude for his great services, deeming such liberality excessive. He thought it a reproach to a senator, an ex-consul, or even a victorious general to whom a public triumph had been accorded, to possess more than fifty *jugera* of land, and regarded as dangerous to the state that citizen for whom even seven *jugera* would not suffice. Accordingly the latter quantity was all he would himself accept, this being the amount of land then assigned to each plebeian family. In the year of the city 496, Regulus, then commanding the army in Africa, wrote to the senate, asking for his recall, on the ground that the manager of his seven *jugera* at Pupinia was dead; that the hired man had run away, carrying the farming-implements with him, and that unless his farm was cultivated he would be unable to support his wife and children. The senate ordered his land to be tilled, and his farming-implements to be replaced at the expense of the state, which also assumed the responsibility of providing for his family, leaving him in Africa to conquer a peace with Carthage. "In those happy times," says Pliny, "the earth, exulting to see herself cultivated by the hands of triumphant victors, seemed to make new efforts, and to produce her fruits in greater abundance."

From such instances as have just been given, coupled with the minute division of the soil which is known to have prevailed during the period under consideration, it may be inferred that although there were slaves and hired laborers among the Romans at that time, the labor of the country (especially in agriculture) was mainly performed by free citizens working on their own account. Their labor may have been severe and their mode of living far from luxurious, but in their enjoyment of personal independence the men among whom the conquering legions of Rome were recruited must have occupied a position vastly superior to that of the proletariat of modern times. As late as the year of the city 575, the cultivation of the soil was almost exclusively performed by proprietors and free laborers. This is positively stated by Cato the elder, who in the same connection, says: "Our fathers, when they wished to designate a good citizen, were accustomed to refer to him as a good colonist (one settled on the public lands) and a good farmer; for these are the laborers who furnish the bravest and most robust soldiers. The profit which is derived from the cultivation of the earth is the most honorable, the most durable, and the least calculated to give cause for censure or excite envy." Cato himself is represented as having worked in the fields with his men, with whom he also sat at table, eating of the same food and drinking of the same wine.

But in the later years of his life (which terminated A. U. 605) the simple habits of Cato were a protest against the incoming tide of luxury and corruption rather than an indication of the manners of the period. The severe and protracted struggle with Carthage, (the second Punic war,) which closed A. U. 553, was quickly followed by the wars with Philip, Antiochus, and Perseus. Greece, Asia Minor, and Syria were

speedily brought under the sway of Rome, and poured their wealth into her lap. The small homesteads whose proprietors had fallen on distant fields were rapidly merged into larger properties and monopolized by the moneyed aristocracy of Rome, who replaced the free cultivators of former times with slaves purchased in foreign markets, or brought in by victorious commanders as a part of the spoils of war. Throughout extensive districts, particularly in Southern Italy, this substitution was all but complete; while in other sections of the country the competition of the great landholders and their hordes of servile laborers drove thousands of small proprietors from an occupation which they no longer found profitable to seek a subsistence by "petty merchandise and handicrafts, by the sportula,\* or by the distributions, wholly or in part gratuitous, of bread, wine, and oil, made regularly by the state, and enhanced occasionally by magistrates, or candidates for the magistracy."

It was under such circumstances that Tiberius Gracchus, traversing the plains of Etruria, and observing with dismay the decline of agriculture, the substitution of pasture for arable land, and the frequent abandonment of fields and farms, conceived the idea of obtaining the passage of a new agrarian law. Elected tribune in the year of the city 621, he succeeded in this design, but was killed, together with three hundred of his adherents, in the tumults precipitated by the effort to carry the law into execution. His younger brother, Caius, was for a time the successful leader of the popular party, and succeeded in obtaining important reformatory legislation; but he, too, fell a victim to the vengeance of the Roman plutocracy, and in the course of fifteen years the measures of the Gracchi were formally repealed.

That the lapse of the half century ending about this time witnessed a very great change in the industrial organization and social condition of the Roman people admits of no doubt. The splendid military organization of the republic still remained, but it was destined soon to become the master rather than the servant of the people. Within a century and a half from the entrance of the legions into Asia, Rome received her first emperor, and thenceforward the ascendancy of the military over the civil power became only the more firmly established as time wore on. More than once in the course of succeeding centuries the senate, which in the eyes of the ambassador of Pyrrhus had seemed an assembly of kings, meekly accepted the ruler selected by the prætorian cohorts,† while at a later day armies recruited from distant provinces, and serving perhaps on the remotest frontiers of the empire, competed for the honor of dictating to the "mistress of the world" the wearer of her imperial purple. Under Augustus and Tiberius the empire was indeed great, prosperous, and in the main well governed. After a long eclipse his glory was restored under Vespasian and Titus, to be again obscured

\* This was a gift of victuals made daily, usually in the morning, by the rich to a certain number of dependents. In one of the satires of Juvenal may be found a lively description of a great man's vestibule crowded with dependents, each attended by a slave bearing a portable kitchen to receive the viands and keep them hot while they were carried home. If the sketches of the satirist are not too highly colored, we must conclude that in his time great numbers of the lower classes derived their whole subsistence from this source, while even the high-born did not scruple to increase their income by taking advantage of the ostentatious profusion of the rich and vain.—(Anthon's Dictionary of Greek and Roman Antiquities.)

† The prætorians were a body of troops instituted by Augustus to protect his person, and called by that name in imitation of the *prætoria cohors*, or select troop, which attended the person of the *prætor* or general of the Roman army. Their original number was nine or ten thousand, which was subsequently increased to sixteen thousand. Their favor was courted even by the most powerful of the emperors, many of whom were their own creatures, and liable to be deposed or put to death at their pleasure.

under Domitian, shine out anew under Nerva, and remain undimmed throughout the long and illustrious reigns of Trajan, Hadrian, Antoninus, and Aurelius. But the ancient freedom of the people existed no longer, and the character of the government depended mainly on the personal qualities of the sovereign.

#### SLAVERY IN ROME.

That this great change in the political condition of the Roman people was largely promoted by the increase of slavery and the concentration of wealth there is no room for doubt. It is probable, however, that the number of slaves was never so large as the language of a majority of writers on Roman history would lead one to infer. In the earlier centuries of the republic the number was comparatively small, as has already been indicated. It is estimated by Dureau de la Malle, in his "Political Economy of the Romans," that in the year of the city 529 the free population of that portion of Italy corresponding to the duchies of Modena and Lucca, the grand duchy of Tuscany, the States of the Church, and the late kingdom of Naples, (exclusive of Sicily,) was to the slaves, freemen, and *peregrini*\* combined as 26 is to 23. Varro, writing fully a century later, and after the number of slaves had been largely increased, states that "all the lands are cultivated by freemen, or slaves, or a mixture of these two classes. The freemen cultivate their lands either with their own labor or that of their children, (as is the case with most of the small proprietors,) or by the employment of hired men and day-laborers during the busy seasons, such as haying, harvest, and the vintage, or by using the labor of *operarii*, (persons who sold their services for a stipulated time in payment of debt.) \* \* I say of all the lands in general," continues Varro, "that it is more profitable to cultivate the unhealthy districts with paid workmen than with slaves, and that even in healthy localities the heavier labors of the country, such as the harvest, the gathering of fruits, and the vintage should be committed to wage-laborers." A law of Julius Cæsar required stock-raisers to employ free inhabitants of the country to the number of one-third of their shepherds and herdsmen, the object being to arrest the decline of the free population, which was probably more rapid and more noticeable in the grazing districts than in other portions of the country. It has already been said that the substitution of slaves for free laborers and small proprietors was at first most extensive in the southern part of the peninsula; and it appears from the testimony of the younger Pliny that in cisalpine Gaul, at least in that portion adjacent to Lake Como, slave-labor was not commonly employed, even in the time of Trajan. Indeed, the statement of Pliny is that the use of slaves in agriculture was absolutely unknown in that part of the country. In the towns and cities they were largely employed by capitalists in carrying on trades and manufactures, one citizen of Rome having had as many as five hundred employed in the various trades connected with the erection of buildings. The domestic service in Roman households, as well as in those of the other cities of the peninsula, was performed almost exclusively by persons of this class, from the *ancillæ* or personal attendants of a wealthy mistress to those engaged in the coarsest drudgery. In thrifty families the domestic work included a large amount of spinning and weaving, as well as the making of garments—labors which were superintended, and to some extent shared, by the mistress herself.

\* The peregrinai embraced those classes of free residents who were not Roman citizens.

Among a people who, at one period of their history, gave to the creditor the power to imprison, starve, scourge, or even take the life of his debtor, it was not to be expected that the laws would afford any systematic protection to the slaves. Cases there were in abundance where slaves were treated with kindness, and even pampered in luxury, but the class, as a rule, were subject to severe oppression and hardship. We read of their working in the field in chains, guarded by armed retainers of the great proprietors, their owners, while at night they were huddled in crowds into buildings which were at once dormitories and prisons. This close guard was, perhaps, most common in the cases of large gangs of slaves who had been recently imported. Speaking of the general treatment of this class, Dureau de la Malle says: "The masters imposed on their slaves a rigorous celibacy, and they were never permitted to enter into matrimonial relations with the free classes. The moderate price of adult slaves made it more profitable to buy them than to bring them up. Considered as beasts of burden or of draught, they were either used or abused at the pleasure of their masters. The inhuman calculation of avarice found profit in destroying, by excessive labor, an animated machine, which it was sure of being able to replace at a small cost. Very often (horrible thing to contemplate!) they were profitable to their masters in proportion to the pitiless severity of their servitude." In the same connection he describes them as being "ill clad, ill lodged, ill fed, and condemned to work in the mines, to grind wheat and other grains, (by hand,) and to perform the severest and most unhealthy labors, in the marine, in manufactures, and in the various processes of industry." In the time of Varro the custom of forbidding marriage among the slaves appears to have been somewhat modified. "As to those who tend the flocks in the mountains and in the woods," says this author, "many proprietors have thought it advantageous to assign them wives, who follow the flocks, prepare the meals of the shepherds, and render them more attentive to their duties. But it is necessary that these women should be robust, of good constitutions, and equal to men in their power of enduring labor."

Among the Romans, as well as in more recent times, the prices of slaves of course varied according to the relation of demand and supply, and according to the age, sex, health, strength, beauty, intelligence, and disposition of the slave; but the medium price of a slave adapted to agricultural labor, or the practice of one of the common mechanical trades, is all that need be here considered. In the following sentence Pliny indicates the usual price of slaves in his time, and also that of a slave valet of a soldier of the Legion of Honor. "So, then," says he, "they sell a bird at the price of a slave, and even for more than the price of a valet, for a white nightingale is sold at 6,000 sesterces," (about \$227.) Plutarch states the average price of a slave employed in agricultural labor in the sixth century of Rome at 1,500 drachmas, or about \$296. Pretroneus and Fortunatianus mention 1,000 denari, or say \$150, as the reward offered at Rome for the return of a fugitive slave; but this only shows that the value of the slave, for whom the reward was offered, was considerably in excess of \$150, and is all the more indefinite from the fact that the occupation of the slave is not mentioned. The price of a slave in the time of Antoninus and Commodus is indicated by the following expression of Scævola: "Si debeas decem millia (H. S.) aut hominem;" which implies that 10,000 sesterces, or, say, \$380, was about equal to the price of a man. Juvenal appraises a fisherman at 6,000 sesterces, and Horace estimates the value of a burnisher at Tibur at 8,000 sesterces. A law of Honorius and Theodosius, dated in

the year 409, provided that Romans sold as slaves who desired to recover their liberty, should either pay to the purchaser the price he had given for them, or else should give five years' labor. From this Dureau de la Malle infers that the price of a slave was then equal to five years' labor; but as the purchase of a slave ordinarily implied the purchase of *all* his labor to the end of his life, the law in question must have been intended to prevent the perpetual enslavement of the class of persons referred to. Such a law would necessarily *limit* the price of slaves entitled to its benefits to the equivalent of five years' labor; but the inference that this was the ordinary market price at the time the law was enacted, is contrary to probability.

Allusion has already been made to the enfranchisement of slaves, which frequently took place in the ancient world. In Rome, during the first three centuries of the republic, the number of enfranchisements appears, however, to have been somewhat limited. Dureau de la Malle estimates the number of freed people in the year 529, in a total population of nearly 5,000,000, at 50,000; but with the increase in the number of slaves there came an increase in the number of enfranchisements; and in the latter days of the empire, especially after the adoption of Christianity, the number of freed-people was very large.

#### FREE LABOR.

It has already been shown that in the best days of the republic the labor of agriculture was in great part performed by small proprietors, working on their own account, many of whom were among the most eminent citizens of the state. In the mechanical trades the case was different, such occupations being forbidden to those who enjoyed full citizenship, and left to the slaves, freedmen, and *peregrini*.

The data from which to determine the wages of free labor in the earlier period of Roman history are very meager; but some idea of the prevailing rates may be gathered from what is known as to wages among the Greeks, and in the Greek colonies of Southern Italy at this time. M. Dureau de la Malle reaches the conclusion that from the close of the Peloponnesian war, (B. C. 404 and A. U. C. 350,) the price of a day's work for a hod-carrier, farm-hand, gardener, miller, carpenter, or mason, was scarcely one-third less than the average price of the same kind of work in France at the time he wrote, or, say, between 1830 and 1840. The wages of miners in the year of Rome 710 have been estimated at about 9½ cents a day; this estimate being based upon a passage of Polybius, in which that author states the product of the labor of 40,000 men employed in the silver-mines of Carthagera, in Spain, at 25,000 drachmas a day. An inscription found at Eski-hissar, in Asiatic Turkey, (supposed to be the ancient Stratoniceia,) preserves an edict\* issued by the Emperor Diocletian in A. D. 301, or, according to some authorities, in A. D. 303, which established a schedule of prices for a large number of articles, as well as for various kinds of labor, and forbade any person to charge more than the fixed rates on pain of death. The denomination of the money in which the various prices are stated is expressed by the sign ✕, which has been decided to represent the denarius. It is evident, however, that this cannot be the denarius of silver, which between A. U. C. 485 and 707 varied from 31½ to 15 cents; and Dureau de la Malle, agreeing with the learned Italian antiquarian, Count Borghesi, is undoubtedly correct in believing it to be the denarius

\* A portion of the same edict was found by Mr. L. Vescovali, of Rome, on a stone in the possession of a gentleman residing at Aix, in Savoy.

of copper, of which the first mention occurs in the works of Flavius Vopiscus, who lived at Rome at the time of Diocletian and Constantine Chlorus. The value of this coin was about half a cent in our money, and it is at this rate that the prices of labor fixed in the edict referred to are converted in the following table :

To the agricultural laborer, per diem.....	\$0 12½
To the stone-mason.....	25
To the laborer on inside work in houses.....	25
To the maker of mortar.....	25
To the worker in marble.....	30
To the worker in mosaic.....	30
To the wall-painter.....	35
To the figure-painter, per diem.....	75
To the coach-maker.....	25
To the ironsmith.....	25
To the baker.....	25
To the shipwright on sea-vessels.....	30
To the shipwright on river-vessels.....	25
To the driver of a camel, an ass, or a mule of burden, with food.....	10
To the shepherd, with food.....	10
To the sheep-shearer, with food, per head.....	01
To the brazier for work on hard brass, by the pound.....	04
To the brazier for work in copper, by the pound.....	03
To the maker of plastic images, with food, per diem.....	35
To the water-carrier, with food, per diem.....	12½
To the scavenger, with food, per diem.....	12½
To the armorer for restoring the edge to a sword.....	12½
To the armorer for polishing a helmet.....	12½
To the armorer for repairing an ax.....	03
To the tailor for lining a fine vest.....	03
To the tailor for an edging on a coarser vest.....	02
To the master appointed to teach letters, for each boy, per month.....	25
To the arithmetician, for each boy, per month.....	37½
To the librarian or antiquary, for each scholar, per month.....	25
To the Greek or Latin grammarian, and to the geometrician, for each scholar, per month.....	1 00
To the orator or sophist, for each scholar, per month.....	1 00
To the advocate or lawyer for an application to the court.....	1 25
To the same at the hearing of the cause.....	10 00
To the servant attending at the public baths and taking care of the clothing of the bathers, for each bather.....	01

A passage of Plautus indicates that previous to A. U. C. 536, the pay of an infantry-man in the Roman army was three *ases* per diem; but it is believed that the real amount was 3½ *ases*, or 100 *ases* per month. The *as* originally contained a Roman pound of copper, (about .72 of a pound avoirdupois;) but for thirty or forty years prior to A. U. C. 536, its weight had been two ounces, and hence it is probably the *as* of this weight to which the author above-named refers. This coin was subsequently reduced to an ounce, and still later to half an ounce, but the pay of the soldier was maintained at one-third of a *denarius*, or about 5 cents per diem. Polybius, who wrote his history in the early part of the seventh century of Rome, (thirty or forty years before the Papirian law reduced the weight of the *as* to half an ounce,) states that the daily pay of the Roman soldier was then 5 *ases*. This would be five-sixteenths of a *denarius*, but the actual pay was probably one-third of a *denarius*, or 5½ *ases*, the writer having fallen into the common practice of neglecting to give the fraction. Suetonius makes the statement that Julius Cæsar doubled the pay of the troops, and the rate fixed by this ruler appears to have been maintained at least until the death of Augustus, when, according to Tacitus, the pay of infantry-men was 10 *ases* or five-eighths of a *denarius* per diem. Their pay was further raised



under Domitian to  $13\frac{1}{2}$  *ases* or five-sixths of a *denarius* a day, which was equal to 25 *denarii*, or about \$3.75 per month.

These successive augmentations of pay were due to various causes, among which may be mentioned the depreciation of money in consequence of its increased abundance, the decay of agriculture, and the falling-off in the free population. In the latter days of the empire the increasing disinclination of the citizens to engage in the military service made it necessary to pay still higher rates, but as these rates had little relation to the wages of labor it is not necessary to inquire into them.

In regard to the cost of the chief necessities of life, the information afforded by Roman authors is scarcely more abundant or satisfactory than that which relates to wages. The price of wheat, however, is given for various epochs. Thus Pliny states that in A. U. C. 298, 327, 345, and 504 wheat was furnished to the people by the authorities at 1 *as* per modius; but up to the year of the city 485, if not later, the *as* was one Roman pound of copper, or about .72 pound avoirdupois, whereas between that date and A. U. C. 665 it was gradually reduced to half an ounce, or one twenty-fourth of its original weight. From this it results that the prices sometimes mentioned as having prevailed in early times seem much lower than they really were. The modius being a measure of very nearly one peck, the cost of a bushel of wheat would be about 2.88 pounds of copper, which is equivalent in weight to about 120 of the copper cents of the United States, such as were coined under the act of January 18, 1837; its value in silver or gold could only be determined by ascertaining the relative values of the three metals at the dates mentioned.

In the *Oratio Frumentaria* Cicero states that the price of wheat in Sicily, in the times of Verres, fluctuated between 15 and 18 sesterces the medimnus, or from  $37\frac{1}{2}$  to 45 cents a bushel; the sesterce then being equivalent to about  $3\frac{1}{2}$  cents, and the medimnus to  $1\frac{1}{2}$  bushels. In the next century (A. U. C. 818) the rate of three sesterces the modius, or, say 45 cents a bushel, is referred to as a very poor price. Adopting an average price of 4 sesterces the modius, or about 60 cents a bushel, as the basis of calculation, M. Dureau de la Malle estimates that in the later days of the Roman republic the ratio of a given weight of wheat to the quantity of silver, which was its equivalent in value, was 1704 to 1.

Under the emperors the price of grain was greatly augmented, and famines were not infrequent. Of these public calamities several occurred during the reign of Augustus, and that of the year 759 was especially severe; while under Tiberius the dearth of breadstuffs was almost continuous, and their prices very high. Tacitus states that in the year of Rome, 772, this emperor fixed a maximum price upon wheat sold to the poorer classes, and re-imbursed the merchants for their loss by adding 2 sesterces the modius, or about 30 cents a bushel, to be paid out of the imperial exchequer. After the burning of Rome under Nero, at a time when public charity appeared to be the only means of averting insurrection, the price of wheat was put down to 3 sesterces the modius, or 45 cents a bushel. Tacitus refers to this as an act of extraordinary munificence, showing that the rate in question was probably very far below that of the market. From figures furnished by Pliny the elder, who died in A. D. 79, it appears that in his day common unbolted wheat flour or meal was worth at the rate of about  $4\frac{1}{2}$  cents, coarse bolted flour about 5 cents, and flour of the finest quality about 10 cents per pound. These figures appear to warrant the conclusion of Mr. Jacob that "the price of bread in Rome when Pliny lived seems to have been nearly the same or a little lower than it usually is in our day in London."

Reference has already been made to the prices fixed by the edict of Diocletian, as preserved in the inscription of Eskihiissar, (or Stratoniceia.) The edict sets forth that the prices of commodities have exceeded all bounds; that the frenzied desire for gain is not moderated by plentiful harvests, or an abundance of provisions; that in towns and cities, and even upon the highways, the spirit of pillage everywhere pursues the armies of the empire, and that the soldier is sometimes deprived of his entire pay, as well as of the imperial largesses, by the engrossing of a single article. "Moved by these considerations," continues the edict, "we have deemed it our duty to fix for our entire empire a scale of prices, which in years of scarcity may restrain avarice within proper limits."

The inscription contains a long list of articles, of which the most important are embraced in the following table, the Roman measures being converted into their nearest American equivalents, and *denarii* reduced to our currency at the rate of half a cent to the *denarius*:

Vinegar, per gallon.....	\$0 21
Salt, per bushel*.....	1 36
Pork, per pound†.....	08½
Beef, per pound.....	05½
Goat's flesh, or mutton, per pound.....	05½
Lard, best quality, per pound.....	11½
The best bacon-ham of Westphalia, or the Cerdagne.....	13½
Fresh sausages of beef, per pound.....	06½†
Seasoned and smoked sausages of pork, per pound.....	11½
Seasoned and smoked sausages of beef, per pound.....	06½†
A fattened cock pheasant.....	1 25
A fattened hen pheasant.....	1 00
A wild cock pheasant.....	62½
A fat goose.....	1 00
Chickens.....	30
Ducks.....	20
Hare.....	75
Rabbit.....	20
Flesh of the wild boar, per pound.....	11½
Flesh of the stag, roe or doe, per pound.....	08½
Sucking pig, per pound.....	11½
Lamb or kid, per pound.....	08½
Butter, per pound.....	11½
Sea-fish of the best quality, per pound.....	16½
Second-rate sea-fish, per pound.....	11½
Best river-fish, per pound.....	08½
Second-rate river-fish, per pound.....	05½
Salt fish, per pound.....	04½
Oysters, per 100.....	50
Dry cheese, per pound.....	08½
Lettuces, the best, 5 for.....	02
Lettuces, second rate, 10 for.....	02
Cauliflowers, the best, 5 for.....	02
Cauliflowers, second rate, 10 for.....	02
Beet-roots, the largest, 5 for.....	02
Beet-roots, second rate, 10 for.....	02
Green onions, the best, 25 for.....	02
Green onions, second rate, 50 for.....	02
Cucumbers, the best, 10 for.....	02
Cucumbers, second rate, 20 for.....	02
Melons, large, 2 for.....	02
Melons, second rate, 4 for.....	02
Watermelons, 4 for.....	02
Kidney-beans, (in the shell,) 25 pods for.....	02
Garden asparagus, per bundle of 25.....	03

\* The quantity in this case is denoted by the sign F. M., which is believed to represent a modius and a half, F being substituted for Γ through an error of the engraver.

† The quantity used in the inscription is the Italian pound, which has been proved by Père Secchi to be the same as the Roman pound, and is, therefore, equal to about .73 pound avoirdupois.

Eggs, 4 for.....	\$0 02
Parsnips (largest size) per bundle of 25.....	03
* Apples, the best Mattian, or * * * *	02
Apples, second rate, 20 for.....	02
Smaller apples, 40 for.....	02
Yellow plums, the largest, 30 for.....	02
Yellow plums, second rate, 40 for.....	02
Pomegranates, the largest, 10 for.....	04
Pomegranates, second-rate, 20 for.....	04
Figs, the best, 25 for.....	02
Figs, second-rate, 40 for.....	02
Dates, the best, 8 for.....	02
Dates, second-rate, 16 for.....	02
<i>Palmula</i> , (smaller dates,) 25 for.....	02
Dried figs, 25 for.....	02
A quilt made of eight goat-skins.....	3 00
A pillow of the softest and largest kind.....	3 00
<i>Caligæ</i> (boots) for muleteers or field-laborers, of the best fashion, without nails.....	60
Shoes for patricians, called <i>calcei</i> .....	75
A senator's <i>caligæ</i> .....	50
A pair of women's <i>caligæ</i> .....	30
A pair of rustic double-soled <i>gallicæ</i> , (Gallic shoes) for men.....	40
A pair of single-soled ditto.....	25
<i>Gallicæ</i> , for women, with double ox-hide sole.....	25
<i>Gallicæ</i> , for women, with single ox-hide sole.....	15
A military saddle.....	2 50
A bridle for a horse.....	50
A bridle for a mule.....	60
A pack-saddle for a mule.....	1 75
A pack-saddle for an ass.....	1 25
A pack-saddle for a camel.....	1 75
Wheat, (inscription partly defaced.)	
Rye, (inscription partly defaced.)	
Bruised millet, per bushel.....	1 02 <sup>1</sup> / <sub>2</sub>
Whole millet, per bushel.....	51 <sup>1</sup> / <sub>2</sub>
Panic, per bushel.....	51 <sup>1</sup> / <sub>2</sub>
Fine spelt, per bushel.....	1 02 <sup>1</sup> / <sub>2</sub>
Inferior spelt, called <i>scandula</i> , per bushel.....	30 <sup>1</sup> / <sub>2</sub>
Bruised beans, per bushel.....	1 02 <sup>1</sup> / <sub>2</sub>
Whole beans, per bushel.....	61 <sup>1</sup> / <sub>2</sub>
Lentils, per bushel.....	1 02 <sup>1</sup> / <sub>2</sub>
Bruised peas, per bushel.....	1 02 <sup>1</sup> / <sub>2</sub>
Whole peas, per bushel.....	61 <sup>1</sup> / <sub>2</sub>
Oats, per bushel.....	30 <sup>1</sup> / <sub>2</sub>
Kidney beans, dry, per bushel.....	1 02 <sup>1</sup> / <sub>2</sub>
Linseed, per bushel.....	1 53 <sup>1</sup> / <sub>2</sub>
Sesamum, per bushel.....	2 04 <sup>1</sup> / <sub>2</sub>
Hemp-seed, per bushel.....	51 <sup>1</sup> / <sub>2</sub>
Falernian wine, per gallon.....	1 05
Old wine of the best quality, per gallon.....	84
Old wine of secondary quality, per gallon.....	56
Rustic wine.....	28
Barley wine of Attica.....	84
Beer called <i>camus</i> .....	14
Zythus, (Egyptian beer).....	07

While these figures afford some indication of the actual market price of the commodities named, it is well known that the rates fixed by Diocletian were as a rule much too low. The result, as might have been anticipated, was to check production and produce scarcity; and after many persons had suffered capital punishment for violations of the edict, it was ultimately found necessary to abandon the effort to enforce it.

It is unfortunate that the inscription in relation to wheat, barley, and rye is partly effaced, but their probable price may be approximately in-

\* The inscription here, as in many parts, is imperfect.

† The *modius castrensis*, which was double the ordinary *modius*, was equal to about .49 of a bushel.

ferred from that of spelt, a bearded grain sometimes ranked as a variety of wheat, but of a rather inferior quality.

The average price of wheat under the reigns of Constantine, Constantius, Julian, and Valentinian, A. D. 306 to 375, was fixed at one *solidus* of gold per ten *modii*, or from \$1.23 to \$1.20 per bushel, according to the value of the *solidus*. This price was an average derived from data covering a considerable number of years.

#### THE ROMAN TRADES UNIONS.

Among the most interesting of the facts which tend to throw light upon the condition of the working classes of Rome must be included those which relate to the trade-unions. The "History of the working and burgher classes," by M. Adolphe Granier de Cassagnac, contains an interesting sketch of these organizations, of which the following is a condensation:

It is related by Plutarch, in his life of Numa, that this king established at Rome the corps of craftsmen. From that epoch the corporations in question passed through three successive periods, of which the first ended about the time of Vespasian, the second about the time of Constantine, and the third with the overthrow of the empire. The first of these periods comprises the formation of the trade-unions, which originally was spontaneous, and not the result of authority. Workmen of the same craft came together, agreed upon certain fixed points to regulate their relations, and elected officers to judge and decide in regard to cases arising under their rules. It was one of the enactments of the Twelve Tables that these rules should conform to the general laws of the state, with which they had sometimes been found to conflict. This enactment, however, to a certain extent created a monopoly in their favor, by prohibiting an unrestrained competition, and enriching the existing unions at the expense of all those who could not organize such associations.

As the number of slaves and the concentration of property increased, the work of private citizens came to be chiefly performed by mechanics of that class, and the trade-unions depended more and more on the employment furnished them by the government in the execution of its enormous public works, such as temples and other public buildings, aqueducts, and those admirable roads, bridges, and other works which, not only in Italy and the East, but throughout Spain, Gaul, Germany, England, and the north of Africa, remained as indestructible monuments of Roman civilization. The trade-unions were thus drawn into closer relations with the state, were subjected more and more to its regulation, and finally became its regular functionaries—not merely executing its works, but also collecting its revenues, or at least that part of them which was paid in kind.

It was by the aid of the trade-unions that the government organized its administrative service. There were trade-unions charged with the collection of the revenues, others supplied Rome with provisions, others took care of the edifices, others clothed the soldiers, others armed them, others supplied the interior and domestic wants of a city full of riches and devoted to all kinds of pleasures. The trade-unions then were the framework of bone that supported the great Roman body.

The Roman trade-unions were of two sorts, the commercial and industrial unions, and bore the name of corporations. The principal commercial corporations of the empire were the sailors' union, the bakers', butchers', limeburners', weavers' and tailors' unions, the shell-fish gath

ers', silk-dyers', carriers', wine-merchants', and lumbermen's unions, and many others, including the respectable corps of sworn measurers of grain at the warehouses of the port of Ostia, (*Mensores portuenses*.) The port of Ostia was the great *entrepôt* of Rome. Hither the corporations of watermen were required to bring the revenues of the lands of the public domain, which were immense. Moreover, there is reason to believe that each commercial union collected the tax in kind which appertained to its specialty; that is to say, the bakers received from the lands of the domain the rent in grain; the wine-merchants the rent in wine; and so of the rest. The butchers, by agents, collected the rents in hogs and cattle from the farmers of certain provinces. The sailors' union, for a fixed charge for freight, transported the revenues in kind to the warehouses of the port of Ostia. The bakers' union located at Rome became, in a measure, responsible for the grain as soon as it was in the warehouses. They had it measured before admitting it into the warehouses by the experts of the measurers' union, and they had it transported to Rome by another union, that of the coasters' of the Tiber.

The interior organization of the Roman trade-unions appears to have been very simple. Those of the same trade, for example, the bakers, who were scattered throughout the empire, were divided into groups in the different provinces and cities. A law of Honorius and Theodosius fixes the maximum of each of these local unions at 563 members. Each of these unions elected annually officers who bore the name of *patrons*. These patrons were also called *syndics* in most of the unions, and there were at least four for each local union. One of these patrons or syndics was named for five years, by the entire corporation, administrator-general of the interests of the society. This officer bore the title of *prior*, and had charge of all the property of the association, movable and immovable.

The industrial unions, in relation to which the documents are not always so clear or so abundant, were formed upon the same general model. A law of Constantine, of the year 337, mentions the following, some of which it is not easy to recognize, either because the text has been altered, or because the specialties of these organizations have perished in the wreck of ancient civilization: Architects; carvers in plaster; a kind of roofers called *albarii*; carpenters; doctors; lapidaries; chasers in silver; masons; veterinary surgeons; stone-cutters; furbishers; *scasores*, (believed to be pavers;) painters; sculptors; pearl-dressers; joiners; statuaries; decorative painters; graveurs on copper; blacksmiths; marble-cutters; gilders; founders; dyers in purple; pavers in mosaic; goldsmiths; looking-glass makers; wheelwrights; water-carriers; glaziers; workers in ivory; fullers; potters; plumbers; furrers. Besides these thirty-five unions there were a number of others, including one of fortune-tellers, mentioned in a law of Honorius and Arcadius of the year 412 as *corpus nemesiacorum*.

It has been said that the Roman trade-unions passed through three periods. During the first of these periods, which terminated about the time of Vespasian, they possessed the right to organize at their own pleasure, though subject to being suppressed if they violated the general laws of the state. This freedom of initiative they appear to have possessed for more than seven centuries. The precise time when it was taken from them is not known, but they possessed it as late as the reign of Nero, whereas, thirty years after the death of that tyrant it had been taken away from them, and it was then necessary to obtain the permission of the government before a union could be organized. A

case in point is found in the request made to the Emperor Trajan by Pliny the younger, for permission to establish a union of blacksmiths in Nicomedia, a request which this emperor refused. It seems probable, therefore, that the first period terminated, as has already been stated, about the time of Vespasian. During the reign of Severus edicts were issued authorizing slaves to form associations with the consent of their masters, but on condition of having a curator who should act for them, and of not meeting oftener than once a month. Nothing of especial importance, however, in relation to the unions, occurred until the middle of the fourth century or a little later.

Up to this time the different corps of craftsmen had indeed been absolutely dependent on, and under the direction of, the government. In Africa they were subject to the jurisdiction of the vicar of the province; in Italy, of the prefect of subsistence, or of the prefect of Rome; in the East, of the proconsul or other dignitary of the palace. As to their duties, they were subject entirely to the will of the emperors. The bakers' union was required to furnish bread to the cities; the sailors and wagoners to furnish transportation; the masons to furnish a sufficient number of hands for the public works; in a word, the corps of craftsmen were strictly instruments of the administration, and, in many respects, even a part of the administration itself. But thus far the different members of these corps were perfectly at liberty to enter or leave them, to pass from one to the other at will, and in all cases to keep their patrimony entirely free, separate, and personal, carrying it with them into any union with which they might affiliate, and retaining the power to sell, give, or bequeath it. This is expressly stated in a law of Constantine of A. D. 319, relative to the bakers' union. This power, however, was taken away by a law of Valentinian II, and of Valens, (A. D. 364,) which only permitted gifts to sons and grandsons; and five years later another law of Valentinian II absolutely forbade the alienation of any of the property of the members of the unions.

Thus was inaugurated the third period in the history of these organizations. The relations of the unions to the government remained as before, but the individuals composing them contracted new and unheard-of obligations. In fact, from this epoch no member of a union could leave it and enter another upon any pretext whatever. More than this, the son was obliged to enter into the union to which his father belonged, and so also was the legatee obliged to enter the union of the legator. The same rule was subsequently extended to sons-in-law, who, if not already members of other unions, were obliged to enter the union to which the father-in-law belonged. In short, the trade-unions imperatively claimed all who, either by gift, purchase, or inheritance, were found in possession of property that had belonged to one of their members; and they also claimed a *pro-rata* share of the property itself. To the stringency of this rule there was an exception in the case of priests, who could sever their connection with a union by surrendering to it their patrimony, as provided in a law of Honorius and Arcadius, A. D. 412. There was also another exception in favor of those who could find acceptable substitutes; but this, of course, left the member dependent on the assent of the union for the sundering of the ties by which he was bound to it.

These regulations, oppressive as they apparently were, were not entirely without their compensations, chief among which was the guarantee of obtaining subsistence in case of need out of the social funds of the union. These social funds, derived from immense domains which were

inalienable and constantly augmented, served for the support of the members, as the property of the monasteries in the Middle Ages served for the support of the monks. The wealth of the unions was derived from several sources, the chief of which were endowments received from the government, the profits obtained from the state and from individuals in the prosecution of their specialties, and, lastly, the property of their members who died intestate.

So long as the prosperity of the trade-unions lasted there was no lack of candidates for admission to them; but there came a time when it was necessary to bring back their fugitive members by force, and to seek recruits among those, who, at an earlier period, would have been excluded from their ranks.

The misfortunes of the unions were mainly traceable to the causes by which the empire itself was undermined. The commercial unions were responsible for the public revenues, and when the rents which they collected from the public domain were inadequate, the government seized upon their own property to make good the deficiency. Again, in the latter days of the empire there were frequent dearths of provisions, owing, in a great measure, to the insecurity of industry. Indeed, it is impossible to recount the passages in Saint Ambrose, Symmachus, Libanius, and even in the laws of the emperors, in which it is related that the magistrates repeatedly drove off without pity the fugitive slaves and beggars who flocked to Rome from all parts of the empire, when famine invaded Italy and surprised the capital of the world in the midst of the ruinous luxury, feasts, and fancies of her emperors. It may readily be conceived that before resorting to these terrible extremes the treasuries of the unions were exhausted, and that when senators had one plate less at their tables the members of the trade-unions did not dine at all. It was, however, the unbounded luxury of the emperors which probably contributed most to the ruin of the trade-unions. The extravagance of these masters of the world was simply incredible. On a banter made to him, Caligula constructed a bridge 3,600 paces in length, and having the width of the Appian way, from the port of Baia to the mole of Puteoli. On this costly structure he made two triumphal marches, after which it was permitted to fall into decay, since it was absolutely without use. Claudius, curious to see the bottom of Lake Fucinus, had its waters drawn off by means of a canal cut through a mountain, the excavation of which is said to have cost the labor of 30,000 men for eleven years. Nero assigned to a pet monkey a palace in Rome, and a castle and lands in the country. The two thousand mules which drew him and his cortege when he went to contend for the prize in the Olympic games were shod with silver, while his three or four thousand lackeys and coachmen were clad in the finest stuffs of Italy. Heliogabalus, who died at eighteen, probably spent in one day more than all the others in paving the court of his palace with all the diamonds, emeralds, and other precious stones that could be found in Italy.

By such excesses was brought about that state of exhaustion which so crippled the empire in its latter days, and in great part these excesses were paid for by the trade-unions. On these, in great measure, fell the expense of the mistresses, the eunuchs, minions, and lackeys, the lions, panthers, parrots, and monkeys of the emperors, for it was they who were called upon to replenish the imperial treasury. Their task grew more and more difficult of performance, and from the middle of the fifth century they were completely disorganized, their members seeking to escape by flight or voluntary exile the burdens which weighed them down. In short, step by step, with the empire, they fell to pieces.

## CONDITION OF THE PEASANTRY.

In regard to the condition of the agricultural laborers in the latter days of the empire, an idea may be formed from the state of the Gallic peasantry of that era, as described by M. J. Benoit in his "*Histoire des Paysans et de leur condition à travers les siècles.*" This author states that they were confined to the fields in company with the animals, and their implements of toil, and prohibited from leaving the estates on which they were employed, approaching the cities, or bearing arms. At this period the proprietors of the soil, and of its cultivators, did not reside in the country, but in Rome, or in the great cities of Gaul, and had no personal relations with their peasants, who were superintended by overseers, such as were formerly employed on large plantations in the South to superintend the labors of negro slaves. Previous to the grave events which took place about the fifth century, by which the Roman laws and institutions were overthrown, the masters of the soil were—

1st. The great Roman and Gallic families.

2d. Chiefs of native tribes to whom the Roman government had made concessions of land.

3d. The fiscal officers of the state.

4th. The clergy.

5th. The small proprietors.

The entire body of peasants, excepting those of the class last mentioned, who were not numerous, were in a state of slavery.

All the historians agree in describing the country, at this period, as presenting a picture of the greatest desolation, the immense domains of the clergy and of the wealthy proprietors being almost wholly uncultivated, and yielding the most meager returns in spite of the oppression to which the slaves were subjected.

The peasants were divided into two classes: Those belonging absolutely to the proprietor, who could sell or exchange them, like his oxen or horses, and those appertaining to the land, who could only be sold or exchanged with it.

Those of the first class were on the same level as the domestic animals, whose companions they were, being considered inferior to all other men, not excepting the slaves in the cities, who were legally subject to the same conditions as themselves; for the latter, living with their masters, of whose families they formed a part, could not fail to acquire a certain amount of intelligence and culture through their daily intercourse with persons of superior condition. The other class, on the contrary, were unknown to the master, who required nothing from them but physical strength, good health, and abundance of work.

The peasant who was attached to the soil might own the tatters in which he was clad, and the animals which formed a part of his family. The other could possess nothing whatever. The great agricultural estates to which persons of this class were confined, were provided with all that was deemed necessary to life, in order to take away from them every pretext for absenting themselves therefrom.

The overseer, who filled the place of the master, provided for all their necessities, as well as for the cultivation of the domain. The food was of the coarsest and most simple kind, consisting chiefly of barley reduced to a pulp by boiling. Each estate was also provided with a prison, and all the facilities for the infliction of punishment upon the slaves. The overseer was the supreme authority in everything which concerned their discipline and punishment. When at work they were commonly



divided into groups more or less numerous, each of which had a superintendent who made use of the whip at his pleasure. When the work was finished on an estate the laborers were often hired out to other proprietors, who provided them with food and paid to the master such compensation as might be agreed upon. Their clothing was simply of a character to protect them from cold or rain, consisting chiefly of skins and a sort of hooded cloak. To this they had no recognized right, and if furnished it was only because the master considered it his interest to keep his human property in good condition.

The peasants who were attached to the soil could never be legally removed from the land to which they belonged even for an instant, and in no case could they obtain their liberty. The children of this class belonged to the estates on which they were born, and formed a part of the inventory of the effects connected therewith, except when it happened that the father and mother belonged to different estates, in which case the children were divided between the proprietors, who could, at their own pleasure, separate wives from their husbands, and children from their father or mother.

It will readily be seen that under such a state of things the family could have no existence. The proprietors did not consider marriage to have been intended for this kind of people, regarding their peasants as they did their cattle, and looking upon the reproduction of their kind simply as a means of increasing their own wealth. In the eyes of the master the peasant was a species of enemy, and was treated with all the rigor of a state of hostility.

The oppression of the master was aggravated by the exactions of the government; for, beside the price which the peasant had to pay to the former for the land which he occupied, he had also to pay the land-tax, a tax for pastures, a capitation tax, and various exceptional assessments. Moreover, he was obliged to work on the roads, to furnish horses to postal agents, to pay octroi duties in the cities, and to bear his quota of the expense connected with replenishing the ranks of the army.

In collecting these taxes and enforcing these various dues, the fiscal agents of the government proceeded with such unheard-of rigor that even the small proprietors, as well as the slaves and the peasants who were attached to the soil, were reduced to the necessity of abandoning the lands they cultivated and flying to the forests, in order to escape at the same time from the masters and the tax-collectors, who were robbing them of all their resources.

A priest of this epoch, named Salvien, has left us a terrible picture of the miseries and sufferings which the peasants endured, and by which they were driven to rise in insurrection against the ruling class.

"What else," says this historian, "but to give themselves up to brigandage, could be done by these unhappy people, ruined, as they were, by incessant public exactions; menaced continually by crushing and unremitting proscriptions; compelled to abandon their homes to escape torture, and to exile themselves in order to avoid punishment? The enemies of the country were less terrible to them than the tax-collectors, and they sought refuge among the barbarians to escape the violence inflicted or threatened by these officials. Their condition, hard and inhuman as it was, would have been less cruel if all had suffered equally in common. But what rendered it more intolerable was that the burden was not equally distributed; that the tribute of the rich was shifted to the shoulders of the poor, and that the feeble bore the burdens of the strong. Thus oppressed and impoverished, nothing was left to these

people but to choose between brigandage and refuge among the enemies of their country. Thus," says Salvien, "they emigrated, pell-mell, to the Goths, the Bagaudi, or other barbarians, preferring to live free, under the appearance of captivity, to leading the life of slaves with the appearance of liberty. For this reason the name of Roman citizen, which was formerly held in so high estimation, is to-day voluntarily repudiated."

Such injustice and cruelty naturally and inevitably led to acts of insubordination and insurrection. The malcontents organized themselves into a league, and their number being rapidly augmented by new recruits, they gave themselves up to brigandage and to insurrection against the Romans.

"Despoiled by bad and cruel judges," says Salvien, "tortured or put to death, after having lost the liberty guaranteed by their Roman citizenship, they renounced the honor of this name; and yet, after this, we are so unreasonable as to impute their misfortune to them as a crime, and stigmatize them with the name of Bagaudi, which we have compelled them to assume. We call them rebels and brigands, when it is ourselves who have driven them to revolution. Is it not our injustice, the sentences of iniquitous judges, their proscription, their robberies; those who divert to their own profit the product of the taxes; those who, like voracious beasts, have devoured the people whose interests have been given them to protect; those, less humane than brigands, who are not contented with despoiling their victims, but tear the flesh and regale themselves with their blood? Who can wonder that men thus treated should become barbarians, when they were no longer permitted to remain Romans? Having completely lost their liberty, nothing was left them but to defend their lives."

Thus, according to Salvien, who lived at this period, it was only indolence and a lack of courage which could induce the peasants to continue their agricultural labors, and prevent them from joining their companions in revolt under the name of Bagaudi. Their headquarters and center of operations was the confluence of the Seine and the Marne, near Paris, in a place which they had strongly fortified, and whence they could defy the Roman power. From this point they spread themselves over all the other portions of Gaul, appealing to all the peasants of the country to enroll themselves under the flag of independence, and strike for their liberty. Their first revolt occurred about A. D. 270, under the lead of one Victoria, who was called by the soldiers the mother of legions. They besieged and captured Autun. They were temporarily quelled by Claudius and Aurelian, who, by remission of the taxes in arrears, and, by granting them a general amnesty, made peace with them.

Under Diocletian they again rose in insurrection about A. D. 280, massacred their masters, and ravaged with fire and sword multitudes of cities and villages. The emperor sent a force against them under Maximian, who prosecuted his warlike operations with so much vigor that, although the Bagaudi were superior in numbers, they were soon compelled to capitulate. Two of their leaders, Ælianus and Amandus, who had assumed the title of emperor, were killed in battle.

From this period they existed chiefly as small bands of brigands, infesting the forests and fastnesses of Gaul until the end of the western empire.

#### LABOR IN EUROPE UNDER THE FEUDAL SYSTEM.

The overthrow of the Roman power in Italy and Western Europe by the northern barbarians was followed by the institution of a new order

of society, an order which grew out of the relations of the conquered to the conquerors, out of the character and habits of the latter, and out of the turbulent state of society which marked the times. In Gaul and Italy the barbarian conquerors found the soil, for the most part, in the hands of large proprietors and cultivated by slaves. In some districts they seized the entire territory, and divided it among them according to their humor and their interests. In other cases they divided the land, in proportions arbitrarily fixed according to their own will, between themselves and the former proprietors. But in all cases the peasants were excluded from a share in the possession of the soil, and compelled to labor for the new masters just as they had done for their predecessors. The system of slavery had existed among the barbarians as well as under the Romans, but in a somewhat milder form, owing to the family and tribal organization under which the former lived. Among them the slaves belonging to the domain of a chief formed a part of his family; and as they were always under the master's eye there grew up between them and him a certain sympathy which was conducive to their well-being. Among the Romans, on the contrary, as well as in the Roman provinces of Western Europe, the landed proprietors were addicted to living in the cities and towns, and were rarely, if ever, seen by the slaves who tilled their fields. The new masters, bringing with them into the Roman provinces the manners of their own country, took up their abode on their domains in the midst of their peasants. The Roman *villa* gave way to the less elegant but more formidable castle of the rural chief, which was a fortress as well as a dwelling. The rude tastes of the conquerors, coupled with the waste and destruction incident to a long struggle for mastery and a constant necessity for defense against aggressive neighbors, almost destroyed the demand for the products of the more advanced industrial arts, led to a steady decline in the population of the cities and towns, and made the castellated dwellings of the nobles the centers of industrial life and the nuclei of social organization. It was a state of society established at the point of the sword, and the same weapon was for several centuries the principal source of law. Violence and depredation were the order of the day, and there could be no security for any one save as a member of some considerable community capable of united action in mutual defense. In such a state of things it was impossible for small landed proprietors to maintain their independence; and they generally gave in their allegiance to some powerful noble or placed themselves under the protection of the church, in either case surrendering their land and paying certain rent or service-dues in consideration of its usufruct. Everything else was sacrificed to military organization and efficient leadership, and isolated independence became impossible. Hence, outside of the walled towns, which in those days were few and feeble, all the detached elements of society necessarily gravitated to the seignorial castle, and there grew up, rather than was instituted, that form of society known as the feudal system, with its gradations of vassalage, its villeins, and its serfs.

It has been remarked that in this new form of society, and in the transition state by which it was preceded, it was found impossible for the small proprietors to maintain their independence. It should be said, however, that efforts were made by the kings to protect them from the aggressions of the nobles and the dignitaries of the church.

On this subject a statute of Charlemagne, the master of an empire which embraced the whole of France, a portion of Spain, more than one-half of Italy, and nearly all of Germany, contains the following:

The poor allege that they have been despoiled of their property, and they complain equally of the bishops, the abbés, and their patrons, and of the nobles and their subordi-

ate military commanders. They also say that when a poor freeman shows himself unwilling to give up his heritage to the bishop, the abbe, the count, the judge, or the military official, these persons avail themselves of every occasion to treat him with harshness, and never fail to send him to the army, so that when completely ruined he may sell them his property on their own terms.

This statute bears date A. D. 811.

At a later day one of the sons of Charlemagne was constrained to come to the defense of the same class. "As to the precautions," says he, "which should be taken in favor of the poor, the care of whom is devolved upon us, it has pleased us to forbid the bishops, abbés, counts, magistrates, judges, and all other persons to purchase or take by force the possessions of the poor and the feeble. For this reason, any one wishing to purchase anything from them is required to do so publicly on court days before two credible witnesses and upon equitable terms. Any such contract made under other circumstances shall be null and void."

Notwithstanding the good sentiments expressed by various kings in regard to the small proprietors, the cupidity of the bishops, abbés, and other members of the ruling classes, was stronger than the edicts, and they did not pause in their career of spoliation until they had completely stripped the poor of their heritage, and reduced them to the condition of serfs.

Of the serfs there were three principal classes. They were all alike bound to the soil, but there were certain differences in the degree of their servitude. And this was also the case with respect to subdivisions of the three classes.

Thus among the ecclesiastical serfs there were two distinct degrees, involving different services. Those of the first degree, who were everywhere superior to the serfs of the laity, had to pay certain dues in labor, which consisted in the cultivation of a definite extent of ground, and in other stated work. Each serf was required to sow and fence in and reap for the bishop, or for the convent, a piece of ground 400 feet long and 40 feet wide, to assist in getting in the harvest, and to mow and gather the hay from an acre of meadow-land.

There were also other dues for the fields and pastures, and certain contributions in poultry and eggs.

The ecclesiastical serfs of the second class were required to work three days in the week for the bishop or the abbe, and three days for themselves, and to furnish the teams and implements necessary for various kinds of farm-work.

If, on the contrary, the master furnished the oxen and implements, he could exact so much the greater amount of personal labor. Their services also comprised the furnishing of work-horses, hauling produce, &c., a distance of fifty leagues,\* carting in the hay, grain, and wine of the master, and various other duties, a failure in which exposed them to punishment.

These two classes of ecclesiastical serfs belonged more especially to the great dignitaries of the church, who enjoyed sufficient power and consideration to enable them to contend successfully with the kings and the great military chiefs of that warlike epoch. As to those who belonged to the less powerful ecclesiastics, whose authority was always contested by the secular lords, and whose expenses were comparatively heavy, their condition resembled that of the serfs belonging to the nobility.

In other respects there was, in those rude times, nothing definitely

\* The French postal league is a little less than 2½ miles.

settled, the arbitrary will of the master alone deciding the degree of servitude to be exacted from the serf.

There were, however, certain general rules established in assemblies of the nobles which were held at intervals, and these rules were accepted as laws by those who took part in the framing of them. But it must be remembered that only one of the parties interested was present in these assemblies.

In distributing lands among the peasants the more extended and fruitful domains lying nearest to the seignorial dwelling were usually assigned to the most robust and active of the serfs, and to those having large families, to assist them in their labors; while to such as from physical feebleness, or any other cause, lacked the requisite conditions for the advantageous working of their allotments, it was the custom to assign lands of inferior quality and of smaller extent.

From the former class were exacted prestations in money and grain, war taxes, or tribute, a large amount of teaming, and many feudal tasks. The burdens imposed on the latter class were lighter in appearance, but in reality more oppressive; for, if instead of wheat and timber, they were only required to contribute small grains and faggots; if, instead of the work of the plow, they were only required to give that of their hands, it must be added that in lieu of the more valuable services which they were unable to render, they were required to perform the humblest and most menial drudgery, such as to grind the corn, perform guard duty around the castle, load and unload manure, &c. In short, one may gain an adequate idea of the services that they were obliged to render to the lord from the fact that they were required to give him five days' work per week.

The imposts levied by the church, and known as tithes, unknown under the Romans, had been introduced by the priests, and in the ninth century were regularly enforced by the laws and sanctioned by the habits of the country. A formal decree of Louis the Pious contains the following provision: "As to him who has neglected to cultivate the dominical lands, in order to avoid the payment of the ninth and the tenth part of its fruits, and who, with this object in view, has taken the lands of others to cultivate, it is our will that he pay, according to law, the ninth part for three years." To invest this impost with still greater sacredness, the clergy excommunicated and anathematized such as failed to pay it. The tithes were levied not only upon all the products of the field, but upon farm animals. For a drove of mares every tenth colt was exacted; or if there were only a few, a penny was charged for each colt. It was the same in respect to cows and calves. Every tenth cheese was also exacted, or else the milk of the cows for every tenth day. It was the same with butter, eggs, and all other products. To enforce these various dues it was often necessary for the ecclesiastical authorities to resort to vigorous punishments.

The exactions to which the peasantry were subjected, however, did not stop here; for, besides the dues already mentioned, they were required to render military services, and to pay a poll-tax, a tax for mast in the forests, and tolls on the highways, the rivers, and in the cities. Each feudal chieftain was required to contribute to the army in war one-tenth part of his peasants under pain of heavy penalties, and sometimes even of confiscation.

The tolls on the highways, &c., were not only heavy but inconvenient and irritating in their character, being levied according to the number of the wheels of the vehicle, the load which it carried, and other conditions imposed by cities and by powerful nobles. The peasants were not

permitted to testify in courts of justice; and if a man murdered one of them, he was not prosecuted for the crime itself, but simply for the damage occasioned to the proprietor. For this reason the life of a free peasant was considered of no value, while that of a serf attached to the soil was estimated at 45 sous. The Ripuarian law inflicted the same penalty upon him who had murdered a free man as upon him who had stolen a dozen mares, or one she-ass, six sows, or one boar.

The punishments inflicted on the serfs varied according to locality, and the disposition of the proprietor; thus, the code of the Visigoths prohibited the killing or the mutilating of a serf, and established the terms upon which a settlement might be made for a wound inflicted upon one of them by another than the proprietor. In the case of the latter it was considered that the injury he inflicted fell upon himself, and therefore he was not held to account. The bishops and their agents could cause peasants guilty of any misdemeanor to be punished without trial, and the number of blows which they inflicted was determined by their own estimate of the gravity of the offense.

It is not necessary here to speak of the mutilations and other cruelties to which fugitive peasants were subjected; suffice it to say that they were at the mercy of their masters, who very often abused their power. And the choice which the masters had of selling or exchanging their serfs, shows that the ties which bound the latter to the glebe had been relaxed for the benefit of their masters rather than their own advantage. All the serfs, even those who cultivated land on shares, were considered as belonging to the soil, from which they could not be detached except by the will of the proprietor. The latter had always the right to oppose the marriage of the serf, when it was to be contracted with one not living on the estate. And the children of such unions, being the property of two masters, were liable to be divided between them without reference to their own wishes or those of their parents.

The oppressions which have been narrated did not fail to produce resistance. Associations were formed, known in history by the name of the *Ghildes*, which quickly extended their ramifications over a large territory, though it was in Normandy and the Isle of France that they chiefly flourished.

These associations had a triple object: 1st, conviviality; 2d, mutual assistance; 3d, political and civil reform.

An idea of the rules which governed them may be obtained from the penalties that were pronounced against them, as well as from their own statutes, published at a later day in the districts where they were permitted to exist. As early as A. D. 779 they were prohibited by a statute of Charlemagne, and another statute of the same monarch ordained certain penalties proportioned to the gravity of the case. "First," says this statute, "any one who shall commit an offense in consequence of his membership in a guild shall be put to death. In the second place his accomplices shall be compelled to flog each other, and cut each other's nostrils; and, thirdly, members who are not guilty of any specific crime shall scourge each other, and cut each other's hair."

These associations, whose efforts were principally directed against the tyranny of the nobles, were never able to organize themselves into an army as the *Bagaudi* had done. But toward the end of the tenth century the peasants attempted to assemble and unite their efforts for common action. Upon this important fact in the history of labor, Guillaume de Jumièges makes the following statement:

The peasants forming themselves into secret societies in the different counties of Normandy, adopted resolutions to the effect that they would live according to their

own pleasure, and submit to no established laws in regard to the use of the forests and of the waters, except such as they chose to make for themselves. From each local assembly two men were chosen to carry these resolutions to an assembly convoked at a central point in the interior, in order to have them confirmed. When the duke (of Normandy) became aware of this movement, he sent a body of troops under the conduct of Count Rodolphe to chastise the boldness of the peasants and disperse the central assembly above mentioned. The count at once seized all the deputies and some others who were found in their company, and having cut off their hands and feet, sent them back thus mutilated to the local assemblies whence they came. The peasants, overawed by this summary treatment, quickly abandoned their assemblies, and thus for the time being ended their efforts at organization and their projected struggle for independence.

During the period extending from the tenth to the fourteenth century the class of serfs who belonged personally to the lord almost entirely disappeared, and the serfs attached to the soil made slow but steady progress toward personal liberty, although they were still the victims of most onerous exactions on the part of both the lords and the church. In conceding lands to the peasants, the feudal proprietors weighed the advantages and disadvantages of serfdom, and they gradually found that free labor yielded them the larger revenue from their estates. Under this system the implements of husbandry, the cattle, and the teams were at the account and risk of the peasant, who was thus stimulated to use them with proper care. The lord ceded his land in consideration of certain dues and services, and gave himself no further trouble except to see that the dues were paid and the services performed.

The dues attached to the occupation of land were paid by the tenants in several forms: First, in money; secondly, in grain and wine, thirdly, in cattle and poultry; fourthly, in articles of consumption; fifthly, in timber and fire-wood; sixthly, in various prestations and tasks. The dues in money were of two kinds, the one fixed and the other contingent, and known respectively as the "censes" and the "ventes." The "cense" was the tax which was paid in money at a specified time, usually at the festival of some saint. It was most frequently the price paid for the use of the meadows. There was also another "cense," which was paid either at the death of the lord or at that of the tenant. The "ventes" consisted of a tax paid to the seigneur for the alienation of lands dependent upon the "seigniorie," or estate, and varied considerably in its form. The heaviest of the dues paid by the peasants was undoubtedly that which was levied upon grain, for this was the one in respect to which the lords could most readily enforce their exactions. The sheaves could be counted in the fields, or the grain measured on the thrashing-floor or in the barn, preparatory to hauling away the share which belonged to the lord.

The exactions of dues for oxen, cows, and horses having been recognized as injurious to the working of the land, was abandoned; but instead of these, there were assessments upon hogs, sheep, lambs, goats, and calves, which served for the consumption of the lord's family and that of his numerous retainers. Certain payments in poultry were exacted from each family as a mark of dependence, and, in addition to these, it was customary to require large contributions of cocks, capons, pullets, geese, &c.—a custom which was not entirely discontinued in France until after the revolution of 1789. There were also dues paid in cheese, butter, oil, wax, soap, &c., Easter and Christmas presents to the lord, the obligation to furnish faggots, vine-poles, staves, hoops, &c. There were still other exactions equally burdensome and vexatious, such as the requirement to furnish lodging for the seigneur and his suite, to feed him and his dogs, and to furnish hay and grass for his horses. It is true that the right of lodging was purchased, but in many localities

the seigneurs imposed a special tax for their dogs. They also imposed a tax on marriages, another on deaths, and a capitation-tax, which was collected in particular cases, most frequently when the seigneur knighted his son, gave his daughter in marriage, departed for the Holy Land, or was taken prisoner. The same usage was followed by the church, only her demands were for the Pope, for religious services, and for the entertainment of the king and his retinue when traveling through the country. In this time of continual strife between rival nobles, the peasants owed their masters military services, and accompanied them to war in the capacity of infantry. It was they also who constructed and kept in repair the fortifications of the castle and performed the teaming necessitated by this work. Lastly, they were required on certain days and in times of danger to perform guard duty around the castle for the security of the seigneur and his suite. Although at this period the distinction between the free man and the serf was beginning to be observed, this distinction really amounted to little in the presence of the overshadowing power of the seigneurs. "Each estate," says Mably, "was a veritable prison for its inhabitants, and these pretended free men could not dispose of their property, either by will or by their own act, while the seigneur was regarded as their heir in default of children domiciled in his fief. Within this limit he did not permit them to dispose of their property, whether movable or immovable, except to a small amount; and even at this time they could not marry without having purchased his permission. Burdened everywhere with fatiguing tasks, humiliating duties, and ruinous contributions, they were constantly in fear of some penalty, some arbitrary tax, or the total confiscation of their goods. The seigneurs tenaciously clung to the idea that everything belonged to them, and that the laborer did not possess even his own habitation save in a precarious manner, dependent on their liberality." Sovereignty was so united to property that the peasants were practically given up to all the haughty and fantastic caprices of the proprietors under whose jurisdiction they lived; and it might truly be said that justice was nothing more than the will of the baron.

A troubadour of the twelfth century has left us, in the "*Roman de Rou*," a statement of the wants and aspirations of the laborers of the times. "Peasants and the inhabitants of the cities," says he, "the people of the forest as well as the people of the plain, have held assemblies to the number of twenty, thirty, or one hundred persons, meeting in obscure places, many of them having sworn to each other that they would never willingly tolerate either a seigneur or a patron of the church. 'The seigneurs,' say they, 'do us nothing but injury, and we cannot obtain from them either right or justice. They possess everything, take everything, eat everything, and compel us to live in poverty and suffering. So many are the services, the taxes, the provosts, and the bailiffs that we have not a single day of peace. Why do we submit to such oppression? Are we less men than they? We have the same members, the same stature, the same power of endurance; all we lack is courage. Let us bind ourselves together by oath, and present a united front in defence of our possessions. It is not so very difficult to fight; there are thirty or forty able-bodied peasants to each noble. Let us learn to conquer, and no one will then exercise dominion over us. We shall then be able to cut trees, catch game in the forests, and fish in the rivers, and to use, at our own pleasure, the meadows and the waters.'"

Such were the thoughts which agitated the peasants of that day. From the eleventh to the fourteenth century terrible insurrections broke out in France and in other parts of Europe, the peasants organ-



izing themselves into army corps, and declaring war against the nobles, and other possessors of the soil. In the thirteenth century hundreds of thousands of them took up arms; and from Flanders, where the organization had its birth, they threw themselves into other provinces of France, gaining new recruits each day in their progress through the country. They were ultimately vanquished by the discipline and union of the nobles, but for more than two hundred years the *débris* of these organizations infested the country, and unhappily their depredations were not confined to the castles of their oppressors, but often extended to the villages and defenseless cities.

In 1358 occurred the revolt known as the Jacquerie riots. After the disastrous defeat of the French at Poitiers there was, for a short time, such anarchy that all the ties which bound the vassal to his feudal chief were broken, each man obtaining almost complete independence. The nobility, whose merciless oppression had already driven the peasantry to desperation, now gave themselves up to the most fearful acts of cruelty. Assembling their troops, they fell suddenly upon the cities and villages, which they pillaged and burned, after slaughtering all who offered them resistance. When they captured any of the peasants they burned off their feet, and subjected them to the most horrible tortures, in order to compel them to disclose such treasures as they were supposed to have concealed. "The peasants," says Michelet, "could no longer sleep. Those who lived on the banks of the Loire passed their nights on the islands in the stream or in boats anchored in the middle of the river. In Picardy the population dug themselves holes in the ground, in which women and children rotted for weeks and months, while the men timidly crept to the tops of the steeples to survey the country and see if the neighborhood was clear of armed bands. Despair armed the population; there was no longer anything to eat, save in the castles, and to the castles the peasants made their way. Thus began that terrible war known as the Jacquerie riots. Each peasant, inspired by vengeance and by want, as much as by hatred, attacked the castles as the famished wolf attacks a sheep-fold. This insurrection, like that of the Bagauds, took its rise in the Isle of France, and spread over the northeastern provinces. For six weeks, say the historians, the peasants pillaged and ravaged the chateaux, committed the greatest cruelties, and gave themselves up to the most fearful excesses. In this, however, they only imitated the example of the seigneurs, and even their worst excesses could not exceed the limits of a just retribution. Their very frenzy, however, was one of the chief causes of their defeat; for, being without discipline or unity of action, they could not withstand the military organization with which they were opposed by the nobles. Their chief, Guillaume Caillet, was taken prisoner by Charles the Bad, of Navarre, who had him crowned with a red-hot tripod of iron and then beheaded. A few weeks later the Captal de Buch and the Count of Foix slaughtered seven thousand of these peasants in the vicinity of Meaux, and thus brought the insurrection to an end.

What has been thus far said in regard to labor under the feudal system refers chiefly to France, and is confined to the labors of the peasantry; but, as has already been pointed out, the finer industrial arts were almost unknown at the period under consideration, the town and city populations were very limited, and the work performed on the rural estates really comprised the great bulk of all the work for which, in that rude age, there was any occasion or demand. The condition of the serfs and peasants on the rural estates was therefore at that time the condition of the vast majority of the laboring population.

## THE FEUDAL PERIOD IN ENGLAND.

It is now time to glance briefly at the history of our English ancestors during the period of Saxon supremacy, and in the centuries immediately succeeding the Norman conquest. In the former period two-thirds of the people are said to have been either slaves, or in a state of bondage approaching slavery, to the remaining one-third. They might be put in bonds and whipped; they might be branded, and on one occasion are spoken of as if actually yoked. Cattle and slaves, in fact, formed a common measure of value under the denomination of live money, and were a medium of exchange in which the prices of commodities were computed.

The operatives and handicraftsmen of this period, as well as the agricultural laborers, were mostly slaves. The clergy and nobility employed as domestic servants persons of this class who were qualified to supply them with such things as were then considered the necessities of life.

Hence in monasteries we find smiths, carpenters, millers, illuminators, architects, agriculturists, and fishermen. Smiths and carpenters were the most numerous and important as ministering to the chief secular pursuits of the time, both in war and husbandry.

Great as were the political effects of the Norman invasion, it did not materially alter the condition of the masses of the people. Their services were as necessary to the new masters as to the old, and the terms on which these were rendered could hardly have been made more onerous than they had been. In order to maintain more firmly the ascendancy of the invaders the feudal relations were enforced with somewhat greater strictness than before, but no changes were made in the chain of subordination which had already been established.

Hence for a long time after the conquest the Saxon subdivisions of society were maintained, and the inhabitants of the country continued to be divided into the two great classes of freemen and serfs or slaves. Except the baronial proprietors of land and their vassals, the free tenants and socmen, the country people were depressed in servitude which was uniform in this respect, that no one who had either been born in, or had fallen into bondage, could acquire any absolute right to property. Aside from this, however, there were distinctions in the degrees of servitude. One class of villeins, or villagers, though bound to the most servile offices of rural industry, were permitted to occupy small portions of land to sustain themselves and families.

Other ranks of men, equally servile, are noticed in the ancient records, particularly the bordars and cottars. The former, in consideration of being allowed a small cottage, were required to provide poultry, eggs, and other articles of diet for the lord's table; and the latter were employed in the trades of smith, carpenter, and other handicraft arts, in which they had been instructed at the charge of their masters. Inferior to these were the thralls, or *servi*, principally employed in menial services about the mansion.

Their lives were professedly protected by law, and with the consent of their owners they were allowed in some cases to purchase their freedom; but, in other respects, they were in the lowest degradation, so much so as to be considered mere chattels and regular articles of commerce.

Giraldus relates that the number of them exported to Ireland for sale in the reign of Henry II was so great that the market was absolutely overstocked; and from William I to the reign of John there was scarcely a cottage in Scotland but possessed an English slave.

In the details of the border wars mention is frequently made of the

number of slaves taken prisoners as forming a principal part of the booty. It is not easy to ascertain from writers of this period the precise immunities of the several classes of bondmen mentioned; the chief differences in their condition arose probably from the relative utility of their occupations; the *servi*, or serfs, as least valuable, being a more ordinary article of traffic and transfer than the bordars and cottars, who had been trained to useful arts or obtained a fixed habitation. All, however, alike appear to have been denuded of the substantial attributes of freemen; the law recognized in none the uncontrolled right to property or change of place without the consent of a superior; the lord had the absolute disposal of his bondmen; they might be attached to the soil or transferred by deed, sale, or conveyance from one owner to another; in short, they were slaves in the strictest sense of the word—men under an obligation of perpetual servitude, which the consent of the master could alone dissolve, and in all probability they enjoyed less legal protection from the ill-usage of their oppressors than the humanity of modern legislation has extended to the brute creation.

Attempts have been made to determine the relative numbers of the several classes of the population at the close of the Anglo-Saxon period, but with no great pretensions to accuracy. In thirty-four counties the burgesses and citizens are set down at 17,105, the villeins at 102,704, the bordars at 74,823, the cottars at 5,947, and the serfs or thralls at 26,552. The remaining population consisted of freemen, ecclesiastics, knights, thanes, and landowners.

The final extinction of slavery in England was a slow and gradual process. The first blow which the system received was in the disuse of the ancient practice of reducing prisoners of war to the condition of bondmen, a step which was probably due to the humane teachings of Christianity, and which certainly marks a decided advance toward the sentiments appropriate to a higher and kindlier civilization. In the eleventh century the Pope formally issued a bull for the emancipation of slaves, and in 1102, in the great council of the nation held at Westminster, it was declared unlawful for any man to sell slaves openly in the market, which had previously been the common custom of the country. It was not until several centuries later, however, that slavery was finally and entirely abolished in England. An attempt to extinguish it, made in 1526, proved unsuccessful, and even Cromwell did not scruple to send the Scottish prisoners, taken at Dunbar in 1650, to the West India colonies as slaves. The system was finally abolished by statute in the reign of Charles II, but even so late as 1775 certain Scottish colliers were so far from being free that their services were bought and sold with the estates to which they were attached, and to which they could be brought back by summary procedure before a magistrate if they ventured to leave and seek employment elsewhere.

But though slavery in the British isles, as well as on the continent, maintained a feeble spark of life until a comparatively recent period, the process of enfranchisement, both personal and political, had been going on for many centuries, and had gradually changed the face of society. One of the chief agencies in effecting this great change was the growth of the incorporated towns and cities. During the turbulent and lawless period which resulted in the development of feudalism the warlike and predatory habits of the age left little security either for industry or commerce; and from this fact, coupled with the absence of any demand for the finer products of industry, to which reference has already been made, it resulted, both in England and in continental countries, that from the fifth to the eleventh centuries there was no tendency among the population

toward urban life. Under these circumstances there was scarcely any growth of new towns or cities, and even those which Roman civilization had left were steadily declining in population, wealth, and influence. So great, in fact, became the preponderance of rural population and power, that the cities were included in the domains of adjacent feudal lords, who often appointed their magistrates, exercised arbitrary authority in various ways, and frequently exacted tribute which amounted to little less than pillage and spoliation. Thus we find the second Earl of Leicester exacting from one of the burgesses of the town of the same name the sum of 500 marks, and from other burgesses sums which were probably as large in proportion to their wealth, in order to make a journey to Rome and purchase a dispensation for his wife, whom he had married in violation of the canons of the church.

But with the complete establishment of feudalism and that rude equilibration of the discordant elements of society which the event involved, there came into existence wants and tendencies which at once formed the germ of a new order of things, a new form of society. Thus there gradually arose a demand for the products of various industries which before had scarcely had an existence. These industries tended to concentrate in the towns and thus to attract population to these centers. Another circumstance which, in the opinion of Guizot, contributed materially to the early growth of the towns, was the right of asylum which the churches gave to fugitives, even at a time when the towns themselves had neither charters nor fortifications, and could not have afforded such protection. It was not merely serfs and villeins who thus sought and found refuge within the precincts of the churches situated in the towns. "The chronicles of the times," says Guizot, "are full of examples of men lately powerful, who, upon being attacked by some powerful neighbor, or even by the king himself, abandoned their dwellings, carrying away all the property they could rake together, and entering some city, placed themselves under the protection of a church. These men became citizens, and while the capital they brought with them gave a desirable impulse to industrial and commercial enterprise, the spirit of resistance to baronial or kingly authority which they also imported was not less useful in promoting the progress of the cities toward civil independence. As the opportunities for industry and trade increased the burgesses felt more keenly the exactions of their feudal lords, by which they too frequently saw the reward of their energy and enterprise swept away. The consciousness of what they could accomplish, if secure in their rights, stimulated them to organization, and each new injustice kindled their resentment, while the feudal lords themselves, by their conduct toward each other and toward their king, furnished the burgesses a perpetual example of the value of resolute will and energetic resistance. How many were the fruitless, and, because fruitless, unrecorded, struggles of the cities for liberty, we shall never know; but during the eleventh and twelfth centuries we find them with arms in their hands, resisting baronial or kingly power, and as a consequence we find large numbers of them obtaining charters by which a liberal share of municipal independence was guaranteed to them." In the opinion of Hallam, such corporations existed earlier in Spain than in any other country. The charter of Leon, granted in 1020, makes mention of the common council of that city as an established and long existing institution. The earliest charters in France, those of St. Quentin and Amiens, were granted by Louis VI, during whose reign, and the reigns of the two succeeding kings, (1108 to 1223,) the principal towns of France acquired the privileges of incorporation. The charter of Lon-

don was granted by Henry I, in the year 1100, but it is not clear that any other corporate towns in England possessed the right of internal jurisdiction before the reign of Henry II, who ascended the throne A. D. 1153.

There are not wanting evidences of the services rendered by the cities when once they attained municipal independence in undermining serfdom and villeinage, and, indeed, the feudal system itself. Thus a chronicler of the twelfth century relates that Louis VII of France founded under his protection a multitude of new cities, which he complains did great wrong to the monasteries and seignors in their vicinity, *whose slaves came thither for refuge*. In like manner the English proprietors in the fourteenth century are found complaining to Parliament of the wholesale absconding of villeins, and above all of the support afforded to these fugitives by the tribunals and the towns. It was almost impossible, they alleged, to reclaim a villein who had escaped to another county or to London.

By thus affording a refuge and employment for fugitive serfs and villeins, the cities did much to bring about a general substitution of free for servile labor. Not only did they afford occupation for a large and growing class of paid laborers and handicraftsmen—a class that was steadily re-enforced by accessions from the serfs, villeins, bordars, and cottars of the country—but they also had a strong influence upon the relations of these classes of rural laborers to their manorial lords. The latter, finding that their subjects had opportunities of escaping from their service, were fain to treat them with greater leniency, and to secure their adhesion by allowing them increased privileges and immunities. In the first two centuries succeeding the Norman conquest, a villein could be subjected to unlimited service by his lord. They differed from the thralls, or personal serfs, in the fact that they were employed in agricultural work, while the latter were assigned to the menial or domestic service of the manor; but so similar was the condition of these two classes that the term “villani,” or villeins, came to be indifferently applied to either.

In short, according to Bracton, one of the most minute and thorough of the juridical writers who have treated on early English law, the agricultural serfs, or villeins proper, were entirely at the disposition of their lords' pleasure. It is true that they occupied and cultivated for their own subsistence a portion of the lord's estate, but this, at least in the beginning, appears to have been a matter of custom and convenience, rather than the consequence of any recognized right which they possessed. The first step toward their emancipation was the substitution of fixed and specified services for services subject directly to the lord's command. Such a division of their time must indeed have been demanded by the lord's convenience, no less than that of the villeins themselves; but at first he had a right to interfere with this arrangement at his own pleasure, and could command extra services whenever he chose. Moreover, the fixed services themselves were then exceedingly onerous.

As a rule, a man of each *virgata*\* worked for the lord three or four days a week from the first of August to Michaelmas, and two or three days a week for the rest of the year. “Beside this,” as we are informed by Nasse in his able and learned work on *The Agricultural Community*

\* The *virgata*, or *virgate*, of land has been said to be only twenty-five acres, but in some calculations it has been rated as high as forty acres, and Mr. Rogers, in his history of English agriculture, expresses the opinion that both of these figures are below the mark.

of the Middle Ages, "the peasants plowed sometimes one day weekly, (except during frost and harvest time,) sometimes a definite extent of one acre for the sowing of winter or summer grain, and also as a rule for the fallow; they harrowed and sowed the plowed land, sometimes furnishing the seed themselves. They rendered further extraordinary service in the hay and corn harvests, being obliged to turn out on the farm two or three times a year with their whole households, the housewife usually being alone excepted." To this must be added the occasional hauling of wood from the forest and corn to the market-town, as well as messenger duty, &c., and a variety of other services. Beside these services they were liable to numerous dues in kind and money-taxes.

It has been already stated that the charter of London was granted in the year 1100, and that other English cities were incorporated during the progress of the twelfth century. In the records of the thirteenth century we find evidences of the substitution of money-rents for personal services. This is the case with the landed estates of the monastery of Worcester and those of St. Paul's church. In many land registers of this period there is a statement of dues and how they shall be paid in work or in kind, and side by side with this statement the amount of money-rent which would be accepted as an equivalent for these services. In the Hundred Rolls (English land records) are found clear traces of the gradual change of service into rent, the words *ad voluntatem domini* (at the will of the lord) often found in connection with the specification of the money value of certain labor, indicating that the lords at first reserved to themselves the right of returning to the system of payment in personal services.

Mr. J. E. Thorold Rogers, in his history of agriculture and prices in England, refers to the marked contrast between the social condition of England in the reign of Henry II, (1153 to 1189,) and the condition which prevailed during the latter years of the reign of Henry III. It is Mr. Rogers' opinion that during the long reign of the latter monarch, (1216 to 1272,) the mass of the English people passed from the condition of serfs, perhaps even slaves, to that of freemen, a small money-rent or a fixed and invariable amount of service for the occupation of land having been substituted for the right which the lord had previously enjoyed of commanding the services of his dependents at his own pleasure. The robber barons, who, like social beasts of prey, had kept the country in a state of terror, had disappeared; the influence of established laws, with something like a regular administration of justice had begun to be felt, and habits of order were becoming diffused among the people. Mr. Rogers presents a mass of interesting facts bearing upon the condition of the English villeins during the century and a half ending with the year 1400. Although they were subject to restraints and liabilities which in our eyes must appear as outrageous violations of personal freedom, he holds that during the period under consideration the services and incidents to which they were liable were determinate, and in no case precarious, as they had been at an earlier period. And degraded as their lot may have been, Mr. Rogers believes that "it was not so grievous as the expressions used about their condition suggest, or inquirers into the state of our forefathers have concluded." In some cases persons of this class held positions of considerable responsibility. Thus Robert Oldman, a villein of Cuxham manor, one of the estates belonging to Merton College, was bailiff of that estate, in which capacity he must not only have superintended the operations of the farm, but also have marketed the produce and kept the accounts of the place. A serf on the estate just

mentioned, holding half a virgate of land, paid one-quarter of seed-wheat at Michaelmas, a peck at Martinmas, four bushels of oats, three fowls, and two pennyworth of bread. The average value of these payments is estimated by Rogers at 7s. 6d. a year. In addition to this, he had to cultivate a rood of land and work six days in harvest on the manor farm, the value of which labor is estimated at 2s. 6d. The total annual rent was, therefore, equivalent to about 10s., which, supposing a half virgate to have contained twenty acres, was only 6d. an acre—"a rate," says Rogers, "which, considering the general goodness of the land in Cuxham, as is evident from the comparative rate of production in that parish, cannot be considered excessive." The services exacted from the tenants in villenage at Farley, another manor belonging to Merton College, were all commutable for specified sums of money. "Thus, Hugh, the son of Chrispian at Haghe, held a messuage and a quarterium of land, (which may probably contain the same quantity as a virgate,) under the following conditions: he pays one shilling a year rent. He is bound to carry dung at a payment of a half-penny a day, or to give three halfpence in lieu of the service; to plow and be fed, or pay sixpence for the year's work; to gather nuts for three days, or forfeit three halfpence; to supply one man in harvest or pay two shillings, in case the lord assents to such a commutation; to plow half an acre for winter and half an acre for lent-corn, or pay sevenpence; to wash and shear sheep and lambs, or pay a half-penny a day during the time; to hoe and be fed, or forfeit three farthings a day; to collect stubble for three days before dinner, and receive a half-penny, or forfeit three halfpence; to give a hen of the value of two pence or a cock of the value of three halfpence, and find a help for the thatcher or forfeit three farthings." Ten other tenants on the same manor held their land upon similar terms. Other villein tenants, holding from eleven to fourteen acres, pay a much smaller rent, their duties being mainly confined to harvest labor.

The rent-roll of the manor of Thorncroft, (Leatherhead in Surrey,) supplies the following facts for the year 1334: Twelve freeholders occupied each a virgate or more, the rent of a virgate varying from 1s. 6d. to 6s. Four held half a virgate, each lot being described as a messuage and thirteen and a half acres of land. Others held quantities varying from seven acres down to half an acre of meadow. One place containing thirteen and a half acres was held on condition of paying a wreath of red roses on midsummer day.

The same manor had one tenant in villenage holding a messuage and a virgate of land and paying five shillings a year, besides which and the liability to pay heriots, the following labor-rents were exacted:

I. To carry dung with cart and two horses and a man for two days; to receive on the first day a farthing's worth of bread, and on the second day a repast, worth three halfpence.

II. To gather stubble four and a half days, at no pay.

III. To plow one acre in winter and another in Lent, with a repast worth three pence each time.

IV. To harrow winter-seed with one horse for half a day, but receive no pay, and oats, with one horse, when they are sown, the lord supplying two other horses.

V. To find one person to assist the thatcher, when the service is needed, at no pay.

VI. To find one person to hoe the lord's corn, at a farthing every other day.

VII. To find one person to turn and cock the hay, the lord being bound to scatter it.

VIII. To find one person to carry the hay in one particular field.

IX. To find one person to dig in the garden half a day, and to thrash half a day gratuitously.

X. To find one man to drag straw from the grange to the hay-rick.

XI. To find one woman to wash and shear sheep and lambs, and to do this for nothing.

XII. To find a man and woman to reap and bind corn all the autumn, to receive two repasts a day, but no drink besides water.

XIII. To find four persons at the lord's bidding in the time of harvest called "Alebedripe," (he himself coming the first hour,) to bind the sheaves and make stacks (hulæ) of them, and to have two repasts and sufficient beer.

XIV. The day after he shall find four persons to reap and bind the corn, and have two repasts without beer.

XV. He shall find a cart for one day, and shall be fed on that day.

XVI. He shall reap, bind, and stack (hullare) an acre of wheat at his own cost.

XVII. He shall present a cock and two hens at Christmas.

Five other tenants held half a virgate, and were charged with analogous obligations and services. "These services," says Rogers, "are rather onerous, and represent more considerable liabilities than I have found elsewhere. But I do not think that, including the rent, the burdens laid on the tenant amounted to as much as fifteen shillings annually." On the same estate there were nine coterells, or cottars, each holding a cottage, and most of them an acre of land, and paying from one to two shillings a year, besides performing slight services of the same character as those rendered by the tenants in villenage.

Beside the services to which he was liable, the villen was subject to numerous restrictions. He was under the necessity of petitioning the lord for a license to marry, for which he was required to pay a sum of money varying in amount, and a breach of this regulation incurred a pecuniary mulct. He had also to pay for the privilege of sending his children to school, while the fine exacted for permanently quitting the manor was an obstacle to the selection of any other pursuit than husbandry, to which a legal impediment was added by a statute passed in the twelfth year of Richard II. It may be doubted, however, whether the statute was very effective, while the fact of its enactment is indicative of the increasing tendency of the villeins to bring their children up to mechanical trades and other non-agricultural occupations. The chief ambition which they entertained appears to have been that of sending one son to school, or rather to the university, with a view to his taking orders in the church, a desire which was looked upon with great suspicion. As early as A. D. 1164, the practice had aroused opposition, since one of the constitutions of Clarendon was directed against it, and more than two centuries afterward the Parliament of Richard II petitioned the king that villeins should be prohibited from sending their children to school to advance them in the church.

The villen was also restrained from purchase or manufacture, except at the lord's discretion. Thus the tenant on the estate of Merton College, at Cambridge, was required to buy his scythe at Chesterton, and at Pentrek a millstone could not be made in the bailiwick without a license from the lord of the manor. It is believed, too, that the use of the village mill, owned by the lord of the manor, was compulsory upon all such inhabitants as owed him suit and service. Thus the records of



the manor court of Kibworth, in Leicestershire, for the year 1331, show that on one occasion the entire village were fined for not having ground their malt at the lord's mill, as they were bound to do. Other cases mentioned in the records of the same manor illustrate the social dependence of the villeins at that time. Thus Robert Goodyer prays the lord of the manor for a license for his daughter Emma to marry, for which he pays eighteen pence; and Matilda Godwene having married without the lord's permission, Alice Godwene (probably her mother) subsequently pays a fine of twelve pence. Nicholas Harcourt pays two shillings for a license to make his son a monk, while Hugh Harcourt, in the following year, (1331,) obtains the same privilege for twelve pence. For two shillings John Scolasse obtains a license to betroth Alice, daughter of William Brown, and "to go and return according to his will whithersoever he wishes, with his chattels and all his goods, movable and immovable."

It is not difficult to understand the influence which the towns and cities would have in relaxing the restrictions and lightening the burdens to which the villeins were subject. A man ceases to be a slave the moment it becomes impracticable forcibly to hold him in a state of slavery. And so when the lords found their serfs had refuges to which they could fly, and from which it was difficult, if not impossible, to bring them back, and that oppressive treatment drove many of them to seek these refuges, they were induced, by self-interest itself, to relax the bondage in which they had held them. At first they were led to refrain from demanding any labor beyond certain regular fixed services, such as those already specified, attached to their "tenements" or holdings of land. Then these fixed services themselves were gradually diminished in amount, and finally, as already stated, they were made commutable into money-rent. The commutation, like the service which it replaced, was fixed in amount, but at first the lord could exact the service instead of its pecuniary equivalent, while the tenant, according to Rogers, could also insist upon giving the service, instead of the money, if he chose to do so. In course of time, however, the payment of money-rents became an established custom, and it is believed that in the latter half of the fourteenth century the number of tenants in villenage who paid rent by service was very small. It may be remarked here that this change occurred much earlier in England than in continental countries, and, coupled with the rulings of English law-courts, was perhaps one of the causes which led to the wide divergence between the subsequent career of the English agricultural class and that of the same class in the several countries of continental Europe. But whatever may have been its ultimate influence in promoting that complete divorce of the English agricultural laborer from the soil which in modern times has been a source of such serious evils, its first introduction was an important step in the direction of personal freedom. It left to the villein the control of his own time, and if by superior energy he could produce for himself a surplus over what was required to pay his dues to the lord, he was free to do so. Moreover, as the lord could now demand nothing from him but a fixed money payment, if he desired to secure his services as a laborer, he must pay him stipulated wages. Thus there gradually grew up a large body of free paid laborers in the country as well as in the cities, a result which, as may be readily seen, was largely due to the fact that the cities afforded a market for rural produce, created commerce, and familiarized the people generally with the use of money as a measure of value and a medium of exchange.

The great plague known as the black death, which broke out in 1343,

exercised an immense influence upon the social condition of the country. Its immediate effects were disastrous in the extreme, sweeping away, according to some estimates, one-half of the population, but its ulterior consequences were seen in a great improvement in the condition of the masses of the people.

The great rise in wages, which was one of its first results, rendered the system of farming by bailiff unprofitable; for even the high price of wheat which prevailed for more than a quarter of a century after the plague, failed to compensate for the enhanced cost of labor. Under this condition of affairs, the practice of letting land on lease became quite general, and it is the opinion of Mr. Rogers that much of the land of the feudal lords was disposed of in small parcels, or, at least, granted at new quit-rents—a form of alienation which did not infringe the statute *quia emptores*. The rent of land at this time was very low, for the produce was worth very little more than the cost of production—a state of things which, however unfavorable it may have been to the owners of large estates, was highly conducive to the prosperity of the small occupier and the laborer—two characters which were often united in the same person.

The great rise in the price of labor at the period under consideration made the services due from the tenants in villenage much more valuable than the money-rents which had been fixed upon as their equivalent; and it is probable that there was a determined effort on the part of the land-owners to revive the exercise of a right which they still possessed in theory, but which in practice they had long before abandoned. Mr. Rogers expresses the opinion that they also undertook to convey the same right to those who took land from them on lease; and it is not unlikely that the latter, animated by a mercenary spirit, endeavored to enforce their claims with greater rigor than the lords themselves. At all events, the well-informed writer just cited regards it as "clear that an attempt to enforce the alternative of labor (instead of money-rents) was one of the most powerful stimulants to the great uprising of the serfs," known in history as Wat Tyler's insurrection.

The story of Tyler's swift vengeance on the Kentish tax-gatherer who had offered an indignity to his daughter is familiar to all readers of English history; but the rising of the peasants was apparently the result of a deliberate plan, a widely-extended organization, and a general sense of oppression. The insurrection broke out on Monday, the 10th of June, 1381, under the lead of Tyler, in Kent, a thorough understanding having been entered into with the villeins of Bedford, Sussex, Essex, Norwich, and other counties. On the following Friday the rebels, who had already entered London, threatened that, unless the King (Richard II) gave them a conference, they would destroy the Tower, with all the persons in it, including of course the King himself and the royal family, who had taken refuge there. Richard, who was then a mere youth, met them at Mile-end, where, according to Froissart, he rode into the crowd and asked them to state their wants. They answered, "We will that ye make us free forever, ourselves, our heirs, and our lands, and that we be called no more bond, or so reputed." The King assented, bidding them to go home at once, but to leave three from each village, who should receive and carry back the charters of manumission—a suggestion upon which many of them immediately acted. Tyler, however, remained, together with two other leaders, Ball and Straw, and a force of about 30,000 men. On the following day, at an interview with the King, Tyler was assassinated by Walworth, mayor of London. By dissimulation Richard appeased the people; but before evening he issued

a proclamation commanding all the country-folk to depart from London under pain of death. The insurrection was broken, and the King soon proceeded to take vengeance on its originators. He made a progress through the disturbed districts, demanding from the chief persons in all the towns and villages the surrender of the movers in the sedition. According to Froissart, no less than fifteen hundred persons were put to death—hanged or gibbeted in chains—while such charters of manumission as had been granted in accordance with the King's promise were revoked and canceled. The terms of one of these charters addressed to the authorities of the county of Herts are given by Walsingham, and are as follows:

Know that, of our special grace, we have manumitted all our liege and singular subjects and others of the county of Hertford, freed each and all of them of all bondage, and made them quit by these presents: Pardon them all felonies, treasons, transgressions, and extortions committed by any or all of them, and assure them of our *summa pax*. Dated June the fifteenth, anno regni quarto.

To certain delegates sent from Essex to request the confirmation of the charters of manumission and certain other benefits, the King, after some hesitation as to how he should answer these audacious petitioners, broke out in the following language:

O vile and odious by land and sea, you are not worthy to live when compared with the lords whom you have attacked; you should be forthwith punished with the vilest deaths, were it not for the office you bear. Go back to your comrades and bear the king's answer. You were and are rustics, and shall remain in bondage; not that of old, but in one infinitely worse. For as long as we live, and by God's help rule over this realm, we will attempt by all our faculties, powers, and means, to make you such an example of offense to the heirs of your servitude, as that they may have you before their eyes, and you may supply them with perpetual ground for cursing and fearing you.

The spirit of Parliament in regard to the same movement is indicated by the answer of that body to a communication informing the Commons of the King's action in granting the charters of manumission, and desiring them to provide for the confirmation or revocation thereof. The communication set forth, among other things that if they (the Lords and Commons) should desire to manumit their villeins by common consent, the King would assent to it. The unanimous answer was, "that all grants of liberties and manumission to the said villeins and bond-tenants obtained by force are in disinherison of them (the Lords and Commons) and to the destruction of the realm, and therefore null and void." To the suggestion in regard to manumitting their villeins by common consent they replied, "that this consent they would never give to save themselves from perishing altogether in one day."

In view of the austere reply of Richard to the delegates from Essex, his suggestion to Parliament seems a little surprising; but, as Mr. Rogers suggests, "that answer may have been partly the expression of indignation, partly of fear, and therefore have had no more than a temporary significance." "We know, too," says the same author, "that the policy of the court was not unfriendly to the emancipation of the serfs; that every construction which lawyers could put upon usage or statute was favorable to the freedom of the serf; and we also know that in after years the King put his veto on those resolutions of the Commons by which they intended to subject the condition of villenage to social disabilities. This is particularly the case in the answer given to the petitions of Parliament in 1391, when the King declines to accede to the request that the sons of villeins should not be allowed to frequent the universities, and to the complaint that villeins fly to cities and boroughs and are there harbored, and that the lord, on attempting to recover his villein, is hindered by the people; with a suggestion that the remedy might

be allowed of seizing the villein without regard to the franchises of the place in which he had taken refuge. When the alarm felt at the actual insurrection was passed away, we may well conceive that the court was disinclined to strengthen the lords by tightening the bonds of servitude." It seems certain that, although the insurrection of 1381 was quelled and its leaders summarily punished, its result was to obtain for the villeins, within a few years, a very considerable extension of their rights and privileges. They had been masters of the situation for a week, and although disbanded, their spirit was not broken, their disaffection allayed, or their secret organization destroyed. Another rebellion was clearly a possible event, and experience had shown that the power of the peasantry was not a thing to be contemned. If the claim to service instead of money-rent had been one of the causes of the insurrection, the effort to enforce it must have been abandoned; for neither then, nor at any subsequent period, was such an effort attended with any permanent or general success. Moreover it is believed that during the latter years of the fourteenth century the villeins attained a recognized place as freemen before the law, since it seems probable that they, as well as the small freeholders, were included in the election statute of Henry IV (who usurped the throne in 1399) as suitors in the county court. The strength and importance which the yeomanry were acquiring at the close of the fourteenth century was promoted during the fifteenth by the prosperity of agriculture, and even by the desolating civil strife known as the wars of the roses. By the expenses, forfeitures, and proscriptions incident to this series of desperate struggles, the feudal aristocracy was almost destroyed, and the Crown, whose power had in the mean time been largely augmented, subsequently built up a new nobility on the ruins of the Church.

But long before the destruction of feudalism, that system had been but the mere shadow of its former self. Villenage, as we have seen, was virtually extinct at the end of the fourteenth century; and long before the villein was formally recognized as a freeman before the law, he had been in the practical enjoyment of many of a freeman's rights. In the mean time, free wage labor had been steadily extending the sphere of its operations—a result, as already shown, which was largely due to the growth of the towns, and to the development of mechanical and manufacturing industry.

During the earlier years of the reign of Edward III (1327 to 1377) the necessities growing out of the war with France brought about intimate commercial relations with the Flemish manufactories, and ultimately led to much industrial prosperity in Norfolk and some other of the eastern counties. A number of Flemish weavers had come over with William the Conqueror, and during the two succeeding reigns the manufacture of woollen cloth had made considerable progress. But under Edward III, this industry received a new impetus. An expert Flemish manufacturer who came to England in 1331, bringing his workmen with him, was very kindly received by this monarch, who issued a proclamation promising similar protection to all foreign weavers and fullers who should settle in England. In 1337 several additional statutes were enacted, one of which made it a felony to export wool, while another limited the use of foreign cloth to the royal family, a third forbade its importation, and a fourth invited cloth-workers into England, and promised them further protection and encouragement. These strong protective measures must have occasioned for a time inconveniences which might have been avoided by the more delicate arrangements known to modern legislation; but they appear to have been instrumental in build-

ing up a flourishing industry, which exerted no small influence upon the economic, and, indirectly, upon the political and social development of the country.

The multiplication of free occupations about the end of the thirteenth and the beginning of the fourteenth century is indicated by two taxing accounts for the borough of Colchester, taken respectively in the years 1296 and 1301. The roll made up at the latter date contains the names of 391 tax-payers. Of these there are 229 whose occupations are not specially designated, and among the remainder there are "twelve clergymen, ten persons apparently of considerable substance, sixteen shoemakers, thirteen tanners, ten smiths, eight weavers, eight butchers, seven bakers, six fullers, six girdlers, five *nautæ*,\* four millers, four *cissores*, and three dyers, besides a number of fishermen, carpenters, and "spicers."† The following trades are also enumerated in the same roll: cooper, seller of white-leather, potter, parchment-maker, pelliparius, cook, tiler, bowyer, barber, mustarder, wool-comber, lorimer, wood-turner, linen-draper, wheelwright, glover, fuel-dealer, old-clothes dealer, sea-coal dealer, glazier, brewer, iron-monger, and wine-seller. Two of the girdlers united the trade of mercer with their other occupation, and one of the mercers included verdigris and quicksilver in his stock in trade. From the number of tanners it is inferred that Colchester had a special trade in leather, which, in the form of tawed skins,‡ is believed to have formed an important article of dress in mediæval times. This borough, which was situated in the richer section of England, and is supposed to have had about 2,000 inhabitants at the time under consideration, may probably be taken as a fair representative of the county towns of that day.

From the large body of information presented by Mr. Rogers, a number of interesting facts may be culled in regard to the occupations pursued in England during the thirteenth and fourteenth centuries. It appears that all villages of any magnitude maintained persons who were engaged in mechanical avocations. No parish or manor, for instance, was without a thatcher, though it is thought that this labor was done by those who, at other times of the year, were engaged in ordinary farm business.

Most of the villages had a smith who found steady employment. The bailiffs of manors, and probably also persons who cultivated small parcels of land on their own account, were accustomed to purchase their iron, and furnish the craftsman with it, paying him for his work, a custom which still prevails in India in the dealings between native artificers and their customers. During the latter part of the fourteenth century, however, it became customary to enter into yearly contracts for supplying horses with shoes—a change which indicates that at this time the artisan was, in a small way, becoming a capitalist.

It is probable that most of the villages maintained a carpenter for common work, such as for repairs of farm-implements and buildings and for the manufacture of common carts and wagons, but the higher branches of this occupation were supplied by migratory workmen, some of whom were paid very considerable wages for the time.

Masons, tilers, and slaters must have been migratory, except perhaps such as lived in the larger towns, as few buildings were of stone except the manor-house and sometimes the grange. Even in towns, unless stone

\* Mariners, but probably captains, or pilots, in contradistinction to sailors.

† This word may be considered as the equivalent of "grocers," having the same origin as the French "*épiciers*."

‡ Skins dressed with lime and fat.

was abundant and near, it is probable wood was more frequently used as the framework of the building. The chimney, however, must have been built of stone, except in the very rudest huts, some of which are said to have been without that convenience.

The first mention of bricklayers occurs in the statute of 1496, so that it is probable the occupation was unknown during the preceding centuries, although tilers are mentioned in the statute of 1350, and tiles are known to have been in use in Suffolk at least as early as 1358.

Sawyers are frequently mentioned, but probably did not carry on a distinct business. They were paid by the day or by the one hundred square feet sawn, and generally the two who worked at the same saw were paid together, which seems to imply that they had mutual arrangements in hiring. When separately paid, the top sawyer was paid at higher rates than the lower one.

Of the farm servants some were engaged permanently; others temporarily and for special purposes. Thus the mowing of hay was done partly by the regular servants of the farm, partly by tenants holding land by customary service, and partly by hired labor, which was often obtained from a distance. The regular servants comprised the plowmen and drivers, the carters, a shepherd or two, according to the size of the flock, a pig-keeper, a cow-herd, and a dairy-woman.\* When the work of the fields was over, the plowmen and drivers were engaged in home occupations, of which the principal was threshing. The winnowing, as a rule, was done by women, especially the dairy-woman, whose in-door work in winter was comparatively light. Where two shepherds were employed, one of them was assigned to the special charge of the ewes, and received better pay than his fellow-servant.

The laborers were generally supplied with an allowance of beer, but as a rule none of them appear to have been maintained in the house except occasionally during harvest. Indeed, they had land and stock of their own—that is, land which they held in villenage—and occasionally the shepherd was remunerated for his services by permission to use the lord's pasture for his own little flock, while the dairy-woman was often the purchaser of calves from the farm on which she was employed.

It should be understood that the word "farm," as here used, refers to the portion of each parish or manor which was held by the lord himself and farmed for his benefit, under the direction of a bailiff. This usually comprised from one-third to one-half of the arable and better pasture-land. The remainder (with the exception of the glebe, over which the feudal rights of the lord of the manor did not extend) comprised the estates of the small freeholders, who paid quit-rents, the holdings of the villeins, bordars, and cottars, and the waste or common, upon which all the tenants had the right of pasture, and sometimes that of cutting turf. The holdings of the villeins were often as extensive as those of the freeholders.

Respecting the physical condition of the English laborer at the period under consideration we possess but scanty knowledge, but it is evident that he must have lived in a very rude and primitive style, and that he was subject to much hardship and privation. His dwelling was constructed of the coarsest materials, most commonly of wattles daubed with mud or clay. Bricks do not appear to have been used until the latter part of the fifteenth century, as the first mention of brick-layers occurs in the statute of 1496. The manor-house was usually built of stone, but the tenements by which it was surrounded were of the mean-

\* The work of the dairy was, however, sometimes performed by a man.

est description. The occupation of a glazier is mentioned in the statute just referred to, but although glass had at that date been long used as the ornament of churches, it was not used even in the better class of private houses until a much later period; for even as late as 1567 it was not common to find glass windows in the castles of the nobility, and they probably were not used in farm-houses much before the reign of James I. That it was an unknown luxury in the hut of a mediæval peasant it is unnecessary to state. Artificial light, too, must have been used very sparingly by the poorer classes, since a pound of candles would almost have absorbed a workman's daily wages. It is believed that fuel also was comparatively dear, and the poor man's home in winter must, therefore, have been the scene of severe privation and discomfort. Hence the advent of spring was hailed with a joy and gladness of which we in modern times can form but a faint conception. Even as late as the reign of Queen Mary the peasant lived in a wretched clay-built hovel; and according to Erasmus the dwellings of the poor generally were unprovided with a chimney to let out the smoke, while their beds consisted of straw, with a block of wood for a pillow, and the flooring of their huts was nothing but the bare ground covered with rushes, among which was "an ancient accumulation of filth and refuse."

The valuation of the movable property in the borough of Colchester made in the year 1296, which has been already referred to, gives an idea of the degree of domestic comfort enjoyed by the small tradesmen and artificers of that period. The amount of household furniture possessed by each family appears to have been very limited, consisting chiefly of a brass pot valued at from 1*s.* to 3*s.*, and a bed valued at from 3*s.* to 6*s.* The former was apparently almost the only culinary utensil then used in the households of the poor.

The valuation taken at the same place in 1301 is still more curious and minute. Among the articles mentioned in the list then made out are found the following, along with which are given the figures indicating the range of their respective values:

	<i>s. d.</i>	<i>s. d.</i>
A bed . . . . .	1 6	to 6 8
A tripod . . . . .	3	to 9
A brass pot . . . . .	1 0	to 2 6
A brass cup . . . . .	6	to 1 0
An andiron . . . . .	3½	to 8
A brass dish . . . . .	6	to 1 0
A gridiron . . . . .	6	to 1 6
A rug or coverlet . . . . .	8	to 1 6
A broad-ax . . . . .	3	to 5
An adze . . . . .	2	
A square . . . . .	1	

A blacksmith's tools were valued at from 2*s.* to 5*s.*; a cobbler's stock in trade at 7*s.* 5*d.*; that of two other cobblers at 10*s.* 6*d.* and 12*s.* 2*d.*, respectively; and that of a tanner at £9 17*s.* 10*d.* There is reason to believe, however, that these prices were considerably below the real value of the articles.

At the period under consideration the manor-house itself was but scantily furnished, while the movables of the "ordinary house" consisted, according to Mr. Rogers, of "a brass pot or two for boiling, and two or three brass dishes; a few wooden platters and trenchers, or, more rarely, of pewter; an iron or latten candlestick; a kitchen knife or two;

a box or barrel for salt, and a brass ewer and basin. \* \* \* The walls were garnished with mattocks, scythes, reaping-hooks, buckets, corn measures, and empty sacks. The dormitory contained a rude bed, and but rarely sheets and blankets, for the gown of the day was generally the coverlet at night."

In the same connection (page 13, vol. i, History of Agriculture and Prices) Mr. Rogers presents the inventory of the effects of John Senekworth, who for several years was bailiff of Merton College, at its manor of Gamlingay, in Cambridgeshire, as well as at other places before. "Senekworth," says this writer, "was evidently a valued servant of the college. (of which one of his brothers was a fellow,) and for a few years before his death the society presented him with five pounds '*ex speciali gratia sociorum.*'"

"The date of the inventory is 1314, the deceased bailiff having bequeathed his goods to the college. It contains a tapetum valued at 7s., two others at 5s., one more at 20d. ; 6 lintheamina, (sheets,) at 4s. each, and a materace,\* at 1s.; a red coverlet, at 2s.; a counterpane, (*co-opertorium pro lecto*), at 4s.; a red gown, at 8s.; another, at 3s.; a blue gown, at 4s.; a kaynet gown, at 2s. 6d.; a russet tunic, at 1s. 6d.; a banker, i. e., a cover for a seat, at 15d.; a table-cloth, at 1s.; two more and two napkins, at 6s.; three quisins, i. e., cushions, at 9d. each. Beside these articles of linen and clothing Senekworth possessed three gold rings, one of which was broken, the whole being valued at 18d.; a purse, at 4d.; a pouch, at 3d.; a knife, at a penny; a forcer—that is, a chest—at 3s.; and another, at 6d.; a leathern forcer, at 3d.; two glasses, (muræ,) one with a silver stand, worth 7s.; a second, 8d.; four silver spoons, valued at 3s. 2d.; two silver seals, (*firmacula*), 2s., one of these being mounted by a gilded penny as a symbol; three books of romance, valued at 3d.; two pair of linen panni, at a shilling; a basin and ewer, at a shilling; beside some less characteristic effects. Senekworth, however, must have been an official of more than usual opulence and social position."

Owing to the high price of clothing the dress of the mediæval peasant must have been exceedingly plain, and the statutes which limited them to the use of the lower-priced materials must have seemed to the mass of the laboring people a very superfluous precaution. Shirts were such valuable articles that they were often the objects of charitable or ostentatious doles, and even in considerably later times they were frequently devised by will. The dress of the laborers in the latter part of the fourteenth century is, however, described as being simple and well-contrived, comprising a jacket and a coat, buttoned and fastened round the body by a belt or girdle, a bonnet of cloth, and hose of the same material, shoes, and occasionally a hat, though the latter was not much used until a century later. The latter article is mentioned in a statute of Richard III, in which the price is limited to 20d.

In respect to food, the English peasantry of the thirteenth, fourteenth, and fifteenth centuries appear to have been tolerably well off. The records of agriculture indicate that wheat was the principal grain consumed by the people. In the allowances to farm-servants it was sometimes mixed with rye or barley, but then, as now, the latter grain was chiefly used in the manufacture of beer.

Meat appears to have been cheap, and, therefore, was probably in fair supply. Mutton could be bought in plenty at about a shilling the carcass, which could scarcely have been more than a farthing a pound; and beef was very little dearer, since the carcass of an ox could be had for 10s. Yet, even at these prices, mutton or beef was a far more expensive diet than wheat, of which, on an average, six pounds could be bought for a penny. Butter and cheese, though abundant and cheap in com-



parison with their modern prices, were at least twice as high as meat. Poultry was to be had in plenty at low prices, and is believed to have been kept by the poorest classes. The most common varieties were geese, ducks, and fowls. Eggs were also exceedingly plentiful and were extensively used. The kind of meat most commonly used by the working classes was pork. Mr. Rogers shows that a hog for the farm-laborers invariably figured in the expenses for autumn on one of the estates belonging to Merton College, while the same estate also allowed its laborers two red herrings a day. Beer was often furnished to laborers by their employers, even where board was not included in their compensation, and on some manors they were feasted at the conclusion of the harvest.

Notwithstanding the abundance and comparative cheapness of meat it was not uncommon to eat the flesh of animals that had died of disease; but it is possible that this arose rather from the want of delicacy and ignorance of hygienic laws than from necessity. The consumption of such meat certainly does not appear to have been confined to periods of scarcity, for we find Walter de Henley, in an ancient treatise on the management of sheep, laying down the following rule: "If one of your sheep dies put the flesh at once into water, and keep it there from day-break to three o'clock, then hang it up to drain thoroughly, salt it and dry it. It will do for your laborers." It may be inferred from this rule that the practice of using diseased meat was not general, otherwise it would hardly have seemed necessary to point out to the thrifty husbandman this particular mode of economizing his means.

The difficulty of keeping stock through the winter caused its slaughter in large quantities during the autumn, and for more than half the year fresh meat was untasted by a great majority of the people. Vegetables were also scarce, for not only was the potato then unknown, but the people were without various other roots, such as carrots, parsnips, &c., which are now in common use. Mr. Rogers expresses the opinion that onions and cabbage were almost the only esculent vegetables in use, though nettles may have been quite commonly used as greens, since *urtica* (supposed to mean nettles) were occasionally sold from the garden. The household roll of the Countess of Leicester, (for 1265,) which is more particularly referred to further on, mentions dried peas and beans, parsley, fennel, onions, green peas, and new beans, and it is possible that the term *potagium* may include other varieties. It is not by any means necessary to infer, however, that these were all in general use among the people. In France, cresses, endive, lettuce, beets, parsnips, carrots, cabbages, leeks, radishes, and cardoons were grown as early as the reign of Charlemagne; but it is not probable that many of these varieties were cultivated in England until a much later period; for even in the fifteenth century the produce of the English kitchen-garden was contemptible in comparison with that of the Netherlands, France, and Italy.

The only fruits of which mention is made in the Countess of Leicester's roll are apples and pears, and it is believed that few other kinds were generally cultivated in England prior to the latter end of the fifteenth century, although Matthew Paris, describing the bad season of A. D. 1257, observes that "apples were scarce and pears scarcer, while quinces, vegetables, cherries, plums, and all shell-fruits were entirely destroyed." In the wardrobe-book of the fourteenth year of the reign of Edward I is found the bill of Nicholas, the royal fruiterer, in which the only fruits mentioned are pears, apples, quinces, medlars, and nuts, the supply of which from Whitsuntide to November cost £21 14s. 1½d.

The great scarcity of vegetables and fruits, coupled with the con-

sumption of salt-meat and salt-fish for more than six months out of the year, gave rise to scurvy in its most virulent forms; and even leprosy, modified, perhaps, by climate, is spoken of by Rogers as a common disorder. The tendency to these and other diseases was doubtless aggravated by the prevalent uncleanness of the peasantry, their wretched habitations, and the indifference which they showed to the simplest sanitary precautions. Even in the latter years of the sixteenth century their habits in this respect had apparently undergone no great change for the better; for the ambassadors of Philip II, who visited England several years after the Spanish invasion, commented on the abundance of food and the uncleanly habits of the common people, remarking that "these peasants" lived "like hogs," though they fared "as well as the king." In the latter particular, especially as regards bread and meat, the English peasants were probably much better off than their brethren of continental Europe, for Fortesque, who wrote in the reign of Henry VI, says of the French peasantry that "they drink water, they eate apples with bread right brown, made of rye; they eate no flesche, but, if it be selden, a littel larde, or of the entrails or heds of beasts sclayne for the nobles or the merchaunts of the lond."

But although the supply of food in England was generally good, there were times when the people suffered intensely through the failure of the crops. The great English statistician, Dr. Farr, in an essay published in the *Journal of the Statistical Society*, states that during the eleventh, twelfth, and thirteenth centuries there was, on an average, a degree of scarcity amounting to famine once every fourteen years. The series of unproductive harvests during the reign of Edward II occasioned intense suffering among the peasantry. In 1308 the price of wheat exceeded all previous experience; was still higher in 1309, and not much reduced in 1310. In 1314 it again exceeded all experience; was greatly enhanced in 1315, and in 1316 was three times as high as the average for 1314. In 1317 the price was about the same as in 1314; was again excessively high in 1321; and did not materially decline until 1322. In the two following years wheat still remained dear, but from that time until the breaking out of the great plague in 1348 the abundance of the harvests was continuous and remarkable. For the first twenty-five years after the plague the average price of wheat was quite high, but the last twenty years of the fourteenth century constituted a period distinguished for its abundant harvests.

It is said that during the long period of scarcity in the early part of that century, a scarcity attributable to incessant rain, and cold, stormy summers, the people ate the flesh of horses and dogs, and were even reduced to the necessity of subsisting upon roots. Stories still more terrible are told of the acts to which they were driven in their dire extremity; and Mr. Rogers, who makes much allowance for exaggeration, says that "no years in the whole course of the economical history of England approach the scarcity of that time, except, perhaps, the few years at the end of the eighteenth and the commencement of the nineteenth centuries."

The effects of a bad harvest in any particular locality were far more disastrous, at the time under consideration, than they would be at present, owing to the want of those facilities for transportation which we now possess in our railways, canals, and ships; yet there is reason to believe that the means of communication in England were better and the habit of travel more general in the thirteenth and fourteenth centuries than they were two or three centuries later. The trade of grain-dealer was, however, unknown, and it does not appear that, except in the abbey granges, grain was anywhere collected in large quantities. The

consequence of this was that a season of comparative plenty was often followed before the next harvest by a very inconvenient scarcity; and the fluctuations in prices were sometimes extremely sudden and violent. Thus Stow relates that in 1317, one of the years of scarcity above referred to, the harvest was all got in before the 1st of September, and that wheat, which before harvest had been selling as high as £4 per quarter, immediately fell to 6s. 8d., one-twelfth of its former price.

Upon a general survey of the field, it is clear that during the thirteenth, fourteenth, and fifteenth centuries, there was a vast improvement in the average condition of the English people. The progress of the industrial arts brought with it a great augmentation of their comforts; rapine and violence gave place to the orderly habits which grow up under the influence of an efficient administration of justice, and the masses made a great advance in securing from the crown and the aristocracy a recognition of their personal and political rights. "The wail over universal oppression, violence, and lawlessness, which is heard in the writings of Hoveden is exchanged in those of Matthew Paris for indignant comment on unwise administration, and uncourtly criticism on the king's domestic and foreign policy;" yet the first of these ancient chroniclers closes his history with the year 1202, and the latter with the year 1273. Such was the progress made in the thirteenth century. A little more than a century later we find the insurrectionist under Wat Tyler, who were chiefly villeins, boldly demanding from the king the rights of freemen, the liberty to trade in the market towns without tolls or imposts, and the legalization of the money-rents, which in practice had already superseded personal services in payment for the occupation of land. And it has already been seen that although the insurrection was crushed, it did not fail to exert a powerful influence in hastening the consummation of the objects aimed at.

It was not without many struggles, however, that the lords relinquished their control over their subjects. In the middle of the fourteenth century, when free labor had become quite general, they made their first attempt to recover, by parliamentary enactment, the substantial results of that authority which, as individuals, they had found themselves unable to maintain. The great plague of 1349, above referred to, had swept off a large portion of the population, and labor, as we have already seen, became extremely dear. To reduce its price, a royal proclamation was issued, fixing the rates of wages, and this, having proved ineffective, was speedily followed by the famous "statute of laborers," which provided for the enforcement of obedience to its enactments by means of fines and corporal punishment. The statute states that since the pestilence no person would serve unless he was paid double the usual wages allowed five years before, to the great detriment of the lords and commons; it then provides that in future carters, plowmen, plow-drivers, shepherds, swine-herds, and other servants should be content with such liveries and wages as they received in the twentieth year of the king's\* reign, and two or three years before; and that in districts where they had been severally paid in wheat, they should receive wheat or money at the rate of ten pence a bushel, at the option of their employers; they were to be hired by the year and other accustomed periods, and not by the day; weeders and haymakers were to be paid at the rate of one penny, mowers five pence per acre, or five pence a day; reapers during the first week in August two pence a day, and from that time till the end of the month three pence a day, without diet or other perquisite. Laborers of this description were enjoined to carry

\* Edward III.

their implements of husbandry openly in their hands to market-towns, and to apply for hire in a public quarter of the town.

The wages for threshing were then regulated. A man, for threshing a quarter of wheat or rye, was allowed  $2\frac{1}{2}d.$ ; for threshing a quarter of barley, oats, beans, and peas,  $1\frac{1}{2}d.$ , or a certain number of sheaves or bushels. In places where it had been customary to pay in kind, laborers were to be sworn twice a year to observe these regulations, and offenders were punishable with three or more days' imprisonment in the stocks.

Wages of artificers were fixed at the following rates: A master-carpenter, by the day,  $3d.$ ; a master-mason, by the day,  $4d.$ ; other carpenters, by the day,  $2d.$ ; other masons, by the day,  $3d.$ ; their servants, by the day,  $1\frac{1}{2}d.$ ; from Easter to Michaelmas without diet. Tilers, by the day,  $3d.$ ; their knaves, by the day,  $1\frac{1}{2}d.$ ; thatchers, by the day,  $3d.$ ; their knaves, by the day,  $1\frac{1}{2}d.$ ; plasterers, and other workers of mud-walls, by the day,  $3d.$ ; their knaves, by the day,  $1\frac{1}{2}d.$ ; from Easter to Michaelmas without diet.

In 1360 the statute of laborers was confirmed by Parliament, and it was provided that servants absenting themselves from their work, or quitting their place of abode, should be imprisoned for fifteen days and branded in the forehead with an iron in the form of the letter F. In cases where laborers fled into the towns, the magistrates were directed to deliver them up; and if they failed to do so, were subjected to a penalty of fifteen pounds, of which ten pounds went to the king and five pounds to the master by whom the fugitive was claimed.

In 1363 a law was enacted to regulate the diet and apparel of laborers. It directed that artificers and servants should be served once a day with meat and fish, or the waste of other victuals, as milk and cheese, according to their station; and they should wear cloth of which the whole piece did not cost more than twelve pence per yard. The cloth of yeomen and tradesmen was not to cost more than one shilling and sixpence per yard. Carters, plowmen, ox-herds, neat-herds, shepherds, and all others employed in husbandry, were to use no kind of cloth but that called black russet, twelve pence per yard. Clothiers were commanded to manufacture the necessary kind of cloth, and tradesmen to have a sufficient stock on hand at the *established legal* prices. Twenty-five years later another law was enacted prohibiting servants from changing their place of abode.

Under Henry VI justices of the peace were empowered to fix the price of labor every Easter and Michaelmas, by proclamation; and in 1444 the wages of agricultural laborers was limited by act of Parliament to the following rates:

#### I.—YEARLY WAGES.

A bailiff in husbandry, £1 3s. 4d., with food and drink, and 5s. for clothing.

A chief-hind, carter, or chief-shepherd, £1, with food and drink, and 4s. for clothing.

A common farm-servant, 15s. with food and drink, and 3s. 4d. for clothing.

A woman-servant, 10s., with food and drink, and 4s. for clothing.

A child under 14 years of age, 6s., with food and drink, and 3s. for clothing.

#### II.—DAILY WAGES.

A mower, with food and drink, 4d. a day; without, 6d. a day.

A reaper or carter, with food and drink, 3d. a day; without, 5d. a day.

Women, and other laborers, with food and drink,  $2\frac{1}{2}d.$  a day ; without,  $4d.$  a day.

A farm-servant intending to leave his place at the end of the year was required to give his master six months' notice ; and if he failed to do so, he was obliged to remain with him another year.

The following were the rates of daily wages for artificers, as fixed by the same statute :

	Between Easter and Michaelmas.		Between Michaelmas and Easter.	
	With diet.	Without diet.	With diet.	Without diet.
A master mason.....	<i>d.</i> 4	<i>d.</i> 5½	<i>d.</i> 3	<i>d.</i> 4½
A master carpenter.....	4	4½	3	4½
A tiler.....	} 3	4½	2½	4
A slater.....				
A rough mason.....				
A common carpenter.....				
Common workman.....	2	3½	1½	3

In the reign of Henry VIII it was enacted that no serving-man under the degree of a gentleman should wear a long gown or coat, containing more than three broad yards, or trimmed with fur, under the penalty of forfeiture ; nor any garde hose, or cloth above the price of twenty pence. The fashion of wearing peaks to shoes or boots, of a length exceeding eleven inches, was prohibited to all but gentlemen.

The rate of wages may be collected from the statute of 1496, mentioned above, and was as follows :

*Agricultural servants, with diet for one year.*

To a bailiff of husbandry, not more than £1 16s. 8d. ; for clothing, 5s.

A chief-hind or chief-shepherd, £1 ; for clothing, 5s.

A common servant of husbandry, 16s. 8d. ; for clothing, 4s.

A woman-servant, 10s. ; for clothing, 4s.

A child under 14 years of age, 6s. 8d. ; for clothing, 4s.

The daily wages of artificers and other laborers, as fixed by the same statute, was as follows :

	Between Easter and Michaelmas.	Between Michaelmas and Easter.
	<i>Per diem.</i>	<i>Per diem.</i>
A master mason, master carpenter, rough mason, brick-layer, master tiler, plumber, glazier, carver, joiner.....	{ With diet, 4d. .... Without diet, 6d. ....	{ With diet, 3d. Without, 5d.
Other laborers, (except in harvest).....	{ With diet, 2d. .... Without diet, 4d. ....	{ With diet, 1½d. .... Without diet, 3d.
In harvest, every mower, by the day.....	{ With diet, 4d. .... Without diet, 6d. ....	
A reaper, by the day.....	{ With diet, 3d. .... Without diet, 5d. ....	
A carter, by the day.....	{ With diet, 3d. .... Without diet, 5d. ....	
Women and other laborers, by the day.....	{ With diet, 2½d. .... Without diet, 4½d. ....	

If any unemployed person refused to serve at the above wages, he might be imprisoned till he found sureties to serve according to the statute. The latter part of this statute regulates the hours of work and meals, by providing that the hours of labor, from March to September, shall be from 5 o'clock in the morning till 7 in the evening; that one hour shall be allowed for breakfast, an hour and a half for dinner, and half an hour for *noon-meate*. The hours of labor in winter are from "springing of day" to dark, and one only hour is allowed for dinner, the extra-half-hour at the meal being allowed for sleeping, from the middle of May to the middle of August.

The same scale of prices as is given in the foregoing table was substantially re-established by the statute of 1514.

It must not be supposed, however, that the prices fixed by statute were universally, or even generally, adhered to among the people,\* and for evidence in regard to the actual rates of wages and the cost of subsistence, it is necessary to look to other sources. Thanks to the learned researches of Mr. Rogers and his patient examinations of ancient records, a large fund of authentic information upon these points is now available. The following tables, which are taken from that author's *History of Agriculture and Prices in England*, probably contain a greater amount of detailed information upon the subjects to which they relate than has ever before been given to the public, showing, as they do, the prices of labor and commodities in England for a period comprising nearly the latter half of the thirteenth and all of the fourteenth century.

Table I shows the highest prices for threshing a quarter of wheat, barley, and oats, respectively, in the eastern, midland, southern, western, and northern counties of England, and in North and South Wales.† The prices are expressed in pence.

Table II shows the average cost of reaping an acre of (1) wheat, (2) barley, (3) drage, (4) oats, (5) rye, (6) beans, peas, and vetches. In that table the seventh column contains the rate for mowing an acre of grass, the sign †, when used, showing that the making of the hay is included. The eighth column relates to the daily wages of thatchers, the ninth to that of a thatcher's assistant, and the tenth to the wages paid to the thatcher and his assistant together.

In Table III, the first column shows the *average*, and the second the *highest* daily wages of carpenters. The columns relating to masons, tilers, slaters, and sawyers show the highest daily wages in these trades. In the case of tilers and slaters, the sign \* indicates that, wherever it is used in the columns relating to these two trades, the wages of an assistant is included.

Table IV shows the prices of threshing, reaping, mowing, and thatching, and of various kinds of mechanical labor, by decennial averages, with the general average (1) for the ninety years before, and (2) for the fifty years after, the great plague.

Table V shows the price of the same kinds of labor for the same periods, expressed in grains of pure silver:

\* Despite repeated legislation and incessant complaint, the laborer ultimately secured the advance which he demanded for his service.—*History of Agriculture and Prices*, vol. I, p. 62.

† North Wales is included with the northern, and South Wales with the western, counties of England.

TABLE I.—HIGHEST PRICES FOR THRESHING

A. D.	East.			Midland.			South.			West.			North.		
	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.
	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1259...	2	1		2	1	1									
1260...				2	1	1									
1261...				1											
1262...				1											
1263...				1											
1264...				1											
1265...				1											
1266...				2	1	1							2	1	1
1267...				2		1							2	1	1
1268...	4	1		4	1	1							2	1	1
1269...	2	1	1												
1270...	2	1	1												
1271...	2	1	1												
1272...	2	1	1												
1273...	4	1	1												
1274...	2	1	1												
1275...	2	1	1												
1276...	2	1	1												
1277...	2	1	1												
1278...	3	1	1												
1279...	3	1	1												
1280...	2	1	1												
1281...	2	1	1												
1282...	3	1	1												
1283...	5	2	1												
1284...	2	1	1												
1285...	2	1	1												
1286...	3	1	1												
1287...	3	1	1												
1288...	3	1	1												
1289...	2	1	1												
1290...	3	1	1												
1291...															
1292...	3	1	1												
1293...	3	1	1												
1294...	3	1	1												
1295...	3	1	1												
1296...	2	1	1												
1297...	3	1	1												
1298...	2	1	1												
1299...	4	2	1												
1300...	3	1	1												
1301...	3	2	1												
1302...	3	1	1												
1303...	3	2	1												
1304...	3	1	1												
1305...	2	1	1												
1306...	3	2	2												
1307...	3	1	1												
1308...	3		1												
1309...	3	2	1												
1310...	3		1												
1311...		1	1												
1312...															
1313...	2		1												
1314...															
1315...	2		1												
1316...	2		1												
1317...	5	2	1												
1318...															
1319...	4	1	1												
1320...	3	2	1												
1321...	4	2	1												
1322...	4	2	1												
1323...	3	2	1												
1324...	3	1	1												
1325...	3	1	1												
1326...	3	1	1												
1327...	3	1	1												
1328...	3	1	1												

\* With winnowing.

† Ten bushels at 3d.

‡ Nine bushels.

TABLE I.—HIGHEST PRICES FOR THRESHING—Continued.

A. D.	East.			Midland.			South.			West.			North.		
	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.
1299	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1300	3	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1301	1	1	1	3	1	1	2	1	1	2	1	1	3	2	1
1302	1	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1303	1	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1304	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1305	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1306	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1307	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1308	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1309	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1310	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1311	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1312	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1313	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1314	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1315	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1316	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1317	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1318	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1319	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1320	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1321	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1322	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1323	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1324	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1325	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1326	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1327	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1328	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1329	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1330	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1331	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1332	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1333	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1334	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1335	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1336	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1337	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1338	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1339	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1340	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1341	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1342	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1343	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1344	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1345	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1346	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1347	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1348	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1349	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1350	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1351	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1352	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1353	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1354	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1355	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1356	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1357	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1358	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1359	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1360	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1361	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1362	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1363	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1364	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1365	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1366	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1367	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1368	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1369	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1370	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1371	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1372	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1373	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1374	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1375	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1376	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1377	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1378	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1379	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1380	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1381	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1382	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1383	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1384	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1385	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1386	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1387	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1388	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1389	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1390	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1391	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1392	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1393	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1394	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1395	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1396	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1397	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1398	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1399	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1
1400	2	1	1	2	1	1	2	1	1	2	1	1	3	2	1

\* Nine bushels.

† Ten bushels.

† Winnowed.



TABLE II.—PRICES OF REAPING, MOWING, AND THATCHING.

Years.	Reaping, per acre.						Mowing, per acre.	Thatcher, per day.	Assistant, per day.	Thatcher and man.
	Wheat.	Barley.	Drage.	Oats.	Rye.	Beans, peas, and vetches.	Pence.	Pence.	Pence.	Pence.
1261.								1		
1262.										
1263.							3½			
1264.							3½			
1265.										
1266.	6	6		6			3½			
1267.	6½	6½		6½			4½			
1268.	5½	5½		5½			5	2		
1269.	4½	4½		4½			4½			
1270.	5½	5½	5½	4½			5½			3½
1271.	3	3½		3			5½	2½	1	2½
1272.							4½	2½		3½
1273.	4	4			4		4½	2½	½	
1274.	5	4½				4½	5½	2½		3½
1275.		2½					6	2½	1½	3
1276.							6½	2½	½	
1277.	6	5½		4½			6½	2½	½	4½
1278.	5½	6		4	4		4	2½		3
1279.	5½	6½	6	5	5	5½	4	2½		4½
1280.	5½	6	6	5½	4½	4½	2½	1½		3½
1281.	5½	5	5	4½		7	4	2		
1282.	5	5½	5	4½	5	4½	5½	3		
1283.	4½	4½		3½		3½				
1284.	4½	5½		4½	4½	3½	5			
1285.	5½	6½	5	4½	3½	5	4	1½		3
1286.	5½	7	5	4½			3½	2	½	3
1287.	4½	6		3½	3½	4		2	½	4½
1288.	5	6		4	4½		2½	1		2½
1289.	4½	4½		4		4½	7	1		
1290.							2			3
1291.	4½			4½			2			4½
1292.	4½	5		4½		4½	2½			3½
1293.	4½	4½	5	4	3		5			3
1294.	5½	5	5½	4½	5½	4½	4	1½		3½
1295.	4½	5½	5	3½	3	5½	6	1½		3½
1296.	5	5	4½	4	4½	4½	4½	1½		3½
1297.	5	5½	5½	4½	3½	4½	4½	1½		3½
1298.	5	4½	5½	4½		6	5½	1		4
1299.	6½	5½	5½	4½		6½	5½	1		3½
1300.	6½	5½		5			6½	1		4
1301.	5½			4½		4½	4	1		3½
1302.	5	4½	4½	4½	4½		4½	2		2½
1303.	5½	5½	6	3½		6	4	2		
1304.	4½	4½		4½		4½	5½	2		3
1305.	4½	4½	5	4		5	4½	2		3
1306.	4½	6	4½	4			4½	2		
1307.	4½	6	4½	4		6	6	2		
1308.	5½	5½	4½	4½	4	5	5½	2½		5
1309.	6½	7½	4½	4½	6	5½	5½	3½		
1310.	6½	6½	6½	5	5	5½	5½	1		3½
1311.	6½	6½	6	5½	6	5½	6	1½		
1312.	6	6	6	5	6	5½	5½	1½		4
1313.	6	6½	6	5½	6	6	6	1½		4
1314.	6½	6½	6½	6½	6½	6½	5½	3½		4½
1315.	7	7		6½			8½	4		4½
1316.	6	6½	6½	6		5½	6½	1½		4½
1317.	6½	7½	6½	5½		5½	2½	1½		4½
1318.	5½	5½		5			7	2½		
1319.	6½		6½	5½			6	2½		4½
1320.	5½	5½	5½	4½		5½	6	2½	1½	4½
1321.	5½	5½		4½		5½	4	3½	1½	4½
1322.	5½	5½	5½	5½	5½		7	2½	1	4½
1323.	6½	6½	6½	6½	6½	6½	6	2½	1	3½
1324.	6½	7½	6½	6½	7½	6½	6½	3½	1	4
1325.	6½	8		5½	7½	6½	4	3½		3½
1326.	5½	5½		5½			5½	2½	1	
1327.	5		5	4	5	4	7	3		3½
1328.	5½	5½	5½	5½	5	5½	4½	2½	1	3½
1329.	5½	6½		5½	5½	6½	5	3½	1	4
1330.	7½		6½	5½			5	3	1½	3½
1331.	6½			4½		6½	5	3	1	4½
1332.	6½	7	6½	5		6½	6	3	1½	4
1333.	7½	9½		6½	8½		5½	3½	1	4½
1334.	5½	5½		5½		5½	2½	1		4½

† See note on page 91.

a Thatcher and two men.

# LABOR IN EUROPE UNDER FEUDAL SYSTEM.

TABLE II.—PRICES OF REAPING, MOWING, AND THATCHING—Continued.

Years.	Reaping, per acre.						Mowing, per acre.	Thatcher, per day.	Assistant, per day.
	Wheat.	Barley.	Drage.	Oats.	Rye.	Beans, peas, and vetches.			
	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1335.....	6	7½	5	4½	5½	5½	5½	2½	1
1336.....	6½	9	5	5	7	.....	5½	2½	1½
1337.....	5½	6½	.....	5	5½	5½	5½	2½	1½
1338.....	5½	6½	4	3½	.....	4	4	2½	1
1339.....	5½	6½	6	4½	4½	4	5½	3	.....
1340.....	5½	5½	.....	4½	5	4½	4½	2½	1½
1341.....	5½	5½	6½	4½	5½	5½	5½	2½	1
1342.....	6	6½	6½	5½	6½	5½	5½	2½	1
1343.....	5½	6½	5½	5½	5½	.....	5½	2½	1
1344.....	5	7½	5	5	.....	.....	5½	2½	1
1345.....	6	6	.....	5½	.....	.....	4½	2½	1
1346.....	5½	6	5	4½	5½	5½	5½	2½	1
1347.....	5½	7	.....	4	6½	4½	5	2½	1
1348.....	6½	9½	6½	7½	7½	5½	9	3½	1½
1349.....	7½	7½	7½	7½	.....	7½	9	3½	1½
1350.....	7½	8½	.....	6½	.....	7½	11	3½	2½
1351.....	7½	.....	.....	.....	7½	.....	8	3	1½
1352.....	6½	7½	.....	7	.....	7	6½	3½	1½
1353.....	8	8	.....	5	.....	8	7½	3½	1½
1354.....	6½	7½	7½	6½	7½	6½	5½	3½	1½
1355.....	9½	9½	.....	7½	.....	7	6	3½	1½
1356.....	8½	9½	.....	8½	9	8½	7½	4	3
1357.....	8	8	6	6	.....	6	6	3½	2½
1358.....	6½	.....	6½	.....	.....	.....	5	4½	2
1359.....	7	7	7	7	.....	7	6	4½	2
1360.....	9½	10½	.....	7½	9½	9	5½	3½	1½
1361.....	7	8½	.....	7	7½	7½	4	3½	1½
1362.....	8	8	8	8	.....	8	7	3	2
1363.....	7½	.....	.....	7½	.....	8½	8	3½	2½
1364.....	6	.....	.....	.....	.....	10	3½	4	2
1365.....	7½	9½	.....	7½	8	8	7½	4	2½
1366.....	7½	.....	11½	7½	.....	7½	7½	3½	2½
1367.....	7½	.....	7½	.....	.....	7½	7	4	.....
1368.....	6	.....	.....	.....	.....	.....	8½	3½	.....
1369.....	.....	.....	.....	.....	.....	.....	8	4	.....
1370.....	.....	.....	.....	.....	.....	.....	6	3	.....
1371.....	11	11	.....	11	.....	11	8	4	.....
1372.....	11½	11½	.....	11½	.....	11½	9½	4½	2½
1373.....	11½	11½	11½	11½	.....	11½	.....	4½	2
1374.....	8½	8½	8½	8½	.....	8½	8½	4½	3
1375.....	6½	6½	6½	6½	.....	6½	8	4	4
1376.....	.....	.....	.....	.....	.....	.....	8	4½	2
1377.....	12½	12½	10½	10½	.....	10½	7½	4	2
1378.....	7½	7½	7½	7½	.....	7½	7½	3½	2
1379.....	12	12	.....	12	.....	12	7½	4	2½
1380.....	10	10	10	10	.....	10	8½	4½	2½
1381.....	9	9	9	9	.....	9	7½	4	2
1382.....	10½	10½	10½	10½	.....	10½	7	4	2
1383.....	9	9	9	9	.....	9	7½	4	2½
1384.....	10	10	.....	10	.....	10	.....	.....	.....
1385.....	8½	8½	8½	8	.....	8	7½	4	2
1386.....	9	9	9	9	.....	9	7½	4½	2½
1387.....	8½	8½	.....	8½	8½	8½	7½	3½	2
1388.....	7½	7½	.....	7½	7½	7½	6½	3	2
1389.....	9½	9½	.....	9½	9½	9½	7	3½	2½
1390.....	10	10	.....	10	.....	10	7	4	2½
1391.....	9½	9½	.....	9½	9½	9½	7½	5	2½
1392.....	7½	8	.....	7½	7	7	6	.....	.....
1393.....	8½	8½	.....	8½	8½	8½	6	3½	2½
1394.....	6½	6½	6½	6½	6½	6½	6½	4½	3
1395.....	7½	8½	.....	7½	7½	7	7	3½	2
1396.....	6½	6½	.....	7½	.....	6½	8½	3½	2½
1397.....	7	7	.....	7	7	7	6½	4	2½
1398.....	6½	6½	6½	6½	6½	6½	6½	4½	2½
1399.....	6½	6½	.....	5½	6½	6½	7	4	2½
1400.....	7½	7½	7½	7½	7½	7½	6½	4½	2½

TABLE III.—PRICES OF MECHANICAL LABOR.

Years.	Carpenter. average.	Carpenter.	Mason.	Tiler.	Slater.	Sawyer.	Sawing per 100 feet.	Years.	Carpenter's average.	Carpenter.	Mason.	Tiler.	Slater.	Sawyer.	Sawing per 100 feet.
Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.	Pence.
1263.	3½	4			2½	2½		1334.	3½	6	3½	3½	*6½	3½	
1264.			2½					1335.	3½	4½	4	*6		3	
1265.	3	3	2½		3½	2½		1336.	3½	4	4	*7	3½		
1266.					2½			1337.	3½	4½		4			8
1267.	3	3			1½			1338.	3	4½	4	*5			
1268.	2½	4						1339.	2½	4		*7	4½		8
1271.	2½	3						1340.	2½	5	3½		*5½	2½	
1272.	2½	3						1341.	2½	5	3	*8	*5		6
1274.	2½	3						1342.	2½	3		*6	*5½	2½	
1275.	2½	2½			2			1343.	3	4		*5			
1277.	2½	2½						1344.	2½	3		*5			7
1278.	2½	2½						1345.	3½	4½	3½	4½	*4½		9
1279.	3	3		*5½				1346.	2½	3	4	*5½			
1280.	2	2						1347.	3½	4½		*6			
1281.	a4½	a5½	5			4½		1348.	3	4		*7			
1282.	b3½	b5			6	2½		1349.	4½	5	4	5		3	
1283.	a1	a4		*5		2½		1350.	4½	7	3		*10½		
1284.	3	3						1351.	3½	4		4	7		
1285.				3				1352.	a9			4			
1286.	3	4	5			3		1353.	4½	a12		*7			
1287.	3	3	c3					1354.	4½	6	3	*8			8
1288.	3½	5	4½			9		1355.	4½	6		*6		4	
1289.	3½	4½	3		*5½	3½		1356.	6	6		*10			
1290.	2½	2½	a4			6		1357.	4½	5			5	4	
1291.	2½	3						1358.	4	4½	6	6			
1292.	2	2						1359.	4½	6	5½		4	6	
1293.	2½	4		3½				1360.	4½	5	5				
1294.	2½	3				5		1361.	4½	6	5	5		5	
1295.	2½	3	3		4½	2½		1362.	4	4½		6			
1296.	2½	4				3½	7	1363.	4½	6	6		6	5	
1297.	2½	4	2½		*6		8½	1364.	4	5	5	3½			
1298.	2½	4		*6				1365.	4½	6		5		5½	
1299.	3½	6		*5½		3½	8	1366.	4½	5	6			5	
1300.	3	4	3					1367.	4½	5	4½	5½			
1301.	3	5						1368.	4½	5		5	5	5	
1302.	2½	3		*4	*5			1369.	4½	6		b15			
1303.	2½	3½		4				1370.	4½	6		5			
1304.	3½	4½			3	2½		1371.	4½	6	7	6			
1305.	3	5		2				1372.	5½	7	6½	6		6	
1306.	3	3			*6½			1373.	4½	6	6	*9		6	
1307.	2½	3½	3½	4				1374.	4½	6	5	6	5	5	
1308.	3½	5	4½	4	*6½	3½		1375.	4½	6		5		5	
1309.	3½	5	4	2	*6½	3½		1376.	4½	6		6			
1310.	3½	4	4½	4	3½	4		1377.	5½	6½	8		4		
1311.	b4½	6		6			11	1378.	4½	a12	6½	4	4		
1312.	3½	4		*5				1379.	6	10	4	*10			
1313.	4	6		*6		3½		1380.	4½	5					
1314.	3½	5		*5½	*5½		8	1381.	4½	5	7	*12			
1315.	3	4	4	*7			12	1382.	4	4	5				
1316.	3½	6	2½	*5½				1383.	5½	a8	6½	5		5	
1317.	3½	5	4		5			1384.	5	5	6	5		5	
1318.	3½	5	4½		6½			1385.	4½	6		6			
1319.	2½	3			5½			1386.	4½	6	4				
1320.	3½	5	4	*6	6½			1387.	5	5			4½		
1321.	3½	5	4	*6		3		1388.	5½	6	6		5½		
1322.	3½	4	4	*7			9	1389.	4	6	6				
1323.	3½	4	4	*6			7	1390.	4½	6½	8	6			
1324.	3½	5	3	*5				1391.	4½	5	6	5	8		
1325.	3½	4½	2½			3	7	1392.	5	6	6	5			
1326.	3	5		4				1393.	4½	6				6	
1327.	3½	4	3½	4½			8	1394.	4½	a12			8		16
1328.	3½	4		*4			8	1395.	5	6	6	*12	5	6	
1329.	3½	4	4	*6		3½		1396.	4½	6	6	4½		4	
1330.	3½	4½	4½	*6	6½			1397.	4½	6	4	7½		5	
1331.	a4	6½	4½	*7	6½			1398.	4½	5	5	*8	4	6	
1332.	3½	4	4	*6	3½			1399.	4½	8½	8	8		6	
1333.	3½	4	4½	*5		3½		1400.	4½	6	4½	*13½		6	

See comments on Table III, page 91, for explanation of \*.

a London.

b Chiefly Oxford.

c Oxford only.

TABLE IV.—PRICES OF THRESHING BY DECENNIAL PERIODS.

(v) Decennial averages. Threshing, (per day.)

Years.	East.			Midland.			South.			West.			North.		
	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.
1250-1270.....	2½	1½	1½	2½	1½	1½	2½	1½	1½	2½	1½	1½	2½	1½	1½
1271-1280.....	2½	1½	1½	2½	1½	1½	2½	1½	1½	2½	1½	1½	2½	1½	1½
1281-1290.....	3	1½	1½	3	1½	1½	3	1½	1½	3	1½	1½	3	1½	1½
1291-1300.....	3	1½	1½	3	1½	1½	3	1½	1½	3	1½	1½	3	1½	1½
1301-1310.....	3	1½	1½	3	1½	1½	3	1½	1½	3	1½	1½	3	1½	1½
1311-1320.....	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½
1321-1330.....	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½
1331-1340.....	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½
1341-1350.....	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½
1351-1360.....	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½
1361-1370.....	4½	2½	2½	4½	2½	2½	4½	2½	2½	4½	2½	2½	4½	2½	2½
1371-1380.....	5	3	3	5	3	3	5	3	3	5	3	3	5	3	3
1381-1390.....	5	3	3	5	3	3	5	3	3	5	3	3	5	3	3
1391-1400.....	5	3	3	5	3	3	5	3	3	5	3	3	5	3	3
Average up to—															
1250.....	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½	3½	1½	1½
1351-1400.....	4½	2½	2½	4½	2½	2½	4½	2½	2½	4½	2½	2½	4½	2½	2½

(b) Decennial averages. Reaping, mowing, thatching.

Years.	Reaping, per acre.						Mowing, per acre.	Thatcher, per day.	Assistant, per day.	Thatcher and man.
	Wheat.	Barley.	Drage.	Oats.	Rye.	Beans, peas, and vetches.				
1251-1270.....	5½	5½	5½	5½	5½	5½	4	2	1	3½
1271-1280.....	5	4½	6	4½	4½	4½	5½	2½	1	3½
1281-1290.....	5½	5½	5	4½	4½	4½	4½	2½	1	3½
1291-1300.....	5½	5	5½	4½	4½	5½	5½	2½	1	3½
1301-1310.....	5½	5½	5	4½	4½	5½	4½	2½	1	3½
1311-1320.....	6½	6½	6½	5½	6½	6	6½	2½	1½	4½
1321-1330.....	6	6½	6	5½	6	5½	5½	3	1	3½
1331-1340.....	6	7	5½	4½	6	5½	5	2½	1½	4½
1341-1350.....	6½	7½	6	5½	6½	5½	6½	2½	1½	4½
1351-1360.....	7½	8½	6½	6½	8½	7½	7½	3½	2	5½
1361-1370.....	7½	8½	8½	7½	7½	7½	7½	3½	2	5½
1371-1380.....	10	10	9	9	-----	9½	7½	4½	2½	6½
1381-1390.....	10	10	9½	10	-----	10	7½	3½	2½	6
1391-1400.....	7½	7½	7	7½	7	7½	6½	4½	2½	7
General average :										
1251-1350.....	5½	5½	5½	4½	5½	5½	5½	2½	1	3½
1351-1400.....	8½	8½	8½	8½	7½	8½	7	3½	2½	6½

(c) Decennial averages. Carpenters, &amp;c., (per day.)

Years.	Carpenter.	Carpenter, highest rate.	Mason.	Tiler.	Tiler and man.	Slater.	Slater and man.	Sawyer.	Sawing per 100 feet.
	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>
1263-1270.....	3½	3½	2½			2½		2½	
1271-1280.....	2½	2½			5½	2			
1281-1290.....	3½	4	4	3	5	4½	5½	3½	7½
1291-1300.....	2½	3½	2½	3½	5½	4½			7½
1301-1310.....	3	4½	4	3½	4	3½	6½		
1311-1320.....	3½	4½	3½	6	5½		5½		10½
1321-1330.....	3½	4½	3½	4	5½		6½		8
1331-1340.....	3½	4½	3½	3½	6½	3½	6½		8
1341-1350.....	3½	4½	3½	5	5½		6½		7½
1351-1360.....	4½	5½	5½	5	9½	5½	4½		8
1361-1370.....	4½	5½	5½	5		5½			
1371-1380.....	5	6½	6½	5½	9½	4½			
1381-1390.....	4½	6½	6	5½	12	5			
1391-1400.....	4½	6½	5½	6	11½	4½	8	5½	16
General average:									
1263-1350.....	3½	4½	3½	4	5½	3½	6½	3	8
1351-1400.....	4½	5½	5½	5½	10½	5	8	5½	12

TABLE V.—PRICES OF THRESHING, ETC., IN GRAINS OF SILVER.

(a.) Threshing, (per day.)

Years.	East.			Midland.			South.			West.			North.		
	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.	Wheat.	Barley.	Oats.
1259-1270.....	59.03	25.78	15.47	43.83	20.62	12.89							51.56	25.78	18.05
1271-1280.....	56.72	30.92	18.05	43.83	33.51	20.62	65.45	30.92	23.2	41.25			20.62	48.98	15.47
1281-1290.....	62.87	30.92	20.62	48.98	30.92	20.62	51.56	28.36	18.05	51.56					
1291-1300.....	62.87	30.92	20.62	48.98	30.92	20.62	54.14	33.51	20.62	46.4	33.51	33.2	41.25	25.78	18.05
1301-1310.....	62.87	38.67	23.2	46.4	30.92	20.62	51.56	30.92	20.62	46.4	30.92	30.62	62.87	41.25	20.62
1311-1320.....	73.19	36.09	23.2	62.87	41.25	23.2	56.72	38.67	23.2	51.56	30.92	20.62	62.87	30.92	20.62
1321-1330.....	68.03	36.09	23.2	56.72	33.51	20.62	54.14	33.51	20.62	51.56	30.92	20.62	59.3	33.51	23.2
1331-1340.....	62.87	36.09	23.2	51.56	30.92	25.78	54.14	33.51	23.2	48.98	30.92	25.78	62.87	48.98	28.36
1341-1350.....	70.61	38.67	25.78	59.3	41.25	28.36	62.87	33.51	23.2	48.98	53.51	25.78	62.87	30.92	
1351-1360.....	68.03	41.25	28.36	73.19	56.72	30.92	73.19	41.25	30.92	59.3	43.83	30.92	82.5	54.14	30.92
1361-1370.....	87.66	78.34	46.4	73.19	68.87	38.67	75.76	41.25	36.09	62.87	46.4	41.25			
1371-1380.....	103.12	62.87	62.87	65.45	59.3	62.87	82.5	68.03	41.25	65.45	46.4	30.92	82.5		41.25
1381-1390.....	73.19	41.25	30.92	65.45	51.56	41.25	62.87	41.25	38.67	62.87	41.25	30.92			
1391-1400.....			51.56	82.5	51.56	54.14	62.87	41.25	38.67	56.72	38.67	30.92	62.87	51.56	51.56
Average up to—															
1350.....	65.45	33.51	20.62	51.56	33.51	20.62	54.14	33.51	20.62	48.98	30.92	23.2	56.72	36.09	20.62
1351-1400.....	85.08	46.41	43.83	73.19	56.72	43.83	73.19	46.41	36.09	62.87	43.83	33.51	75.76	51.56	41.25

(b.) *Reaping, &c., (per day.)*

Years.	Reaping, (per acre.)						Mowing, per acre.	Thatcher, per day.	Assistant, per day.	Thatcher and man.
	Wheat.	Barley.	Drage.	Oats.	Rye.	Beans, peas, and vetches.				
1261-1270	113.44	113.44	113.44	108.28	.....	.....	82.5	41.25	.....	63.19
1271-1280	103.12	87.97	127.75	87.66	92.31	100.55	108.28	48.98	20.62	68.03
1281-1290	105.7	118.59	103.19	87.66	87.66	95.39	100.55	43.83	18.05	59.3
1291-1300	108.98	103.12	108.98	87.66	85.08	105.7	105.7	51.56	18.05	63.19
1301-1310	105.7	118.59	103.19	87.66	97.97	105.7	100.55	51.56	20.62	70.61
1311-1320	196.33	134.06	196.33	113.44	196.33	123.75	138.64	59.3	25.78	92.81
1321-1330	123.75	128.91	123.75	110.86	123.75	110.86	110.86	62.67	20.62	80.92
1331-1340	123.75	144.37	108.28	100.55	123.75	113.44	103.19	59.3	23.9	85.08
1341-1350	196.33	146.95	123.75	118.59	198.91	121.17	134.06	59.3	23.9	85.08
1351-1360	159.84	172.73	141.8	139.29	175.31	158.11	131.48	73.19	41.25	113.44
1361-1370	146.95	175.31	183.05	157.26	162.48	158.64	154.59	73.19	41.25	118.59
1371-1380	207.25	207.25	186.68	204.67	.....	204.67	149.53	85.08	51.56	139.29
1381-1390	207.25	207.25	189.2	207.25	.....	207.25	149.53	80.92	43.83	123.75
1391-1400	152.11	154.59	144.37	146.95	144.37	146.95	139.28	85.08	54.14	144.37
Average:										
1261-1350	116.01	121.17	116.01	100.55	108.28	108.28	108.28	54.14	20.62	73.1
1351-1400	175.31	183.05	167.58	170.16	159.84	172.73	144.37	80.92	46.4	128.9

*Mechanical labor, (per day.)*

Years.	Carpenter, average.	Carpenter.	Mason.	Tiler.	Tiler and man.	Slater.	Slater and man.	Sawyer per day.	Sawyer per 100 feet.
1261-1270	65.45	73.19	51.56	.....	.....	51.56	.....	51.56	.....
1271-1280	51.56	56.72	.....	.....	108.28	41.25	.....	.....	.....
1281-1290	73.19	82.5	82.5	62.87	103.12	.....	118.59	65.45	154.59
1291-1300	54.14	68.34	56.73	73.19	105.7	92.81	.....	59.3	146.95
1301-1310	62.87	85.08	82.5	65.45	82.5	68.03	126.33	70.61	.....
1311-1320	75.76	100.55	78.34	123.75	121.17	.....	118.59	68.03	209.83
1321-1330	70.61	100.55	783.4	82.5	113.44	.....	134.06	68.03	165.
1331-1340	68.03	95.39	80.92	68.34	126.33	78.34	126.33	62.87	165.
1341-1350	65.45	87.66	73.19	103.12	121.17	.....	131.48	56.72	159.84
1351-1360	87.66	118.59	100.55	163.12	172.73	110.86	.....	95.39	165.
1361-1370	87.66	113.44	110.86	103.12	.....	113.44	.....	103.12	.....
1371-1380	103.12	134.06	126.33	113.44	196.93	90.23	.....	113.44	.....
1381-1390	97.97	113.44	123.75	113.44	247.4	103.12	.....	103.12	.....
1391-1400	95.39	128.91	116.01	123.75	235.61	92.81	165.	116.01	330.
Average:									
1261-1350	65.45	85.08	73.19	82.5	110.86	65.45	126.33	62.87	165.
1351-1400	95.39	121.17	116.01	110.86	212.41	103.12	165.	105.7	247.5

The eleven tables which follow give the prices of various commodities in England for the period comprised in the foregoing tables on wages:

TABLE I.—AVERAGE PRICE OF GRAIN BY DECENTIAL PERIODS, (PER QUARTER.)

Decade.	Wheat.	Barley.	Oats.	Beans.	Pease.	Rye.	Malt, (first quality.)
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1261-1270	4 8½	3 5½	1 11½	2 10½	3 0	4 4½	3 7½
1271-1280	5 7½	4 4½	2 4½	4 2½	3 10½	4 9½	4 4½
1281-1290	5 0½	3 5½	2 3	3 4½	3 2½	3 11	4 8½
1291-1300	6 1½	4 5½	2 5½	4 5½	4 4½	4 8½	5 1½
1301-1310	5 7½	3 11½	2 5½	4 1½	3 9½	4 4½	4 1½
1311-1320	7 10½	5 6½	3 1½	5 9½	5 2½	6 5½	6 6½
1321-1330	6 11½	4 6½	2 8½	5 6½	4 8½	5 3½	5 10½
1331-1340	4 8½	3 5	2 4½	3 5½	3 0	3 3½	3 11½
1341-1350	5 3½	3 8½	2 3	3 8½	2 11½	3 8½	4 2½
1351-1360	6 10½	4 7	2 10	4 4½	3 11½	4 5½	5 6½
1361-1370	7 3½	5 4	3 2½	5 3½	4 4½	5 2½	6 7½
1371-1380	6 1½	3 10½	2 5½	4 2½	3 3½	4 1½	4 1½
1381-1390	5 2	3 4½	2 2	4 5½	3 4½	3 8½	4 4½
1391-1400	5 3	3 5½	2 3½	4 3	3 5	3 4½	4 5½
General average, 140 years.	5 10½	4 3½	2 5½	4 3½	3 9	4 4½	4 10

TABLE II.—AVERAGE PRICE OF GRAIN, BY DECENNIAL PERIODS, REDUCED TO GRAINS OF PURE SILVER, (PER QUARTER.)

Decade.	Wheat.	Barley.	Oats.	Beans.	Pease.	Rye.	Malt, (first quality.)
1861-1870.....	1167.89	858.51	483.11	790.3	742.5	1077.66	899.76
1871-1880.....	1397.34	1077.66	592.93	1049.3	957.48	1186.93	1077.66
1881-1890.....	1255.55	850.78	557.87	843.05	796.64	970.37	1165.31
1891-1900.....	1508.2	1096.28	602.28	1103.44	1080.23	1157.58	1268.44
1901-1910.....	1387.03	983.26	607.44	1020.94	931.7	1062.81	1015.78
1911-1920.....	1944.91	1374.14	768.28	1434.28	1289.06	1590.7	1619.06
1921-1930.....	1725.76	1116.33	667.73	1374.14	1167.89	1315.84	1455.06
1931-1940.....	1170.47	845.62	510.47	855.94	742.5	820.84	978.11
1941-1950.....	1302.95	917.81	557.87	910.08	930.61	922.97	1049.3
1951-1960.....	1705.14	1134.17	702.25	1077.66	975.53	1100.86	1366.41
1961-1970.....	1798.53	1239.08	786.33	1308.11	1085.39	1281.33	1634.53
1971-1980.....	1510.78	954.91	597.19	1041.56	810.53	1015.78	1013.9
1981-1990.....	1278.75	832.73	536.25	1100.86	830.16	917.81	1067.97
1991-2000.....	1300.37	863.67	563.03	1032.87	845.62	840.47	1111.17
General average, 140 years.	1450.22	1041.34	612.59	1063.19	929.12	1067.97	1197.25

TABLE III.—AVERAGE PRICE OF CATTLE AND HORSES, BY DECENNIAL PERIODS.

Decade.	Oxen.	Cows.	Bulls.	* Affri and stotta.	Catt-horses.
1861-1870.....	s. d. 10 3	s. d. 6 2	s. d. 10 6	s. d. 11 3½	s. d. 17 1½
1871-1880.....	12 2½	7 11½	9 6½	13 1½	17 1½
1881-1890.....	10 ½	6 10	8 2½	11 9½	20 9
1891-1900.....	10 7	8 1½	8 8½	10 6½	14 5
1901-1910.....	11 11½	8 7½	11 4½	11 5½	16 4½
1911-1920.....	14 4	10 10½	11 11	13 4	19 4
1921-1930.....	14 6½	12 ½	11 10½	12 5½	21 0
1931-1940.....	12 9½	9 3½	9 4	10 7	19 5½
1941-1950.....	11 8½	9 4	10 11	11 2	17 5½
1951-1960.....	13 5½	10 2	10 4½	11 7½	17 ½
1961-1970.....	17 4½	11 10½	12 9½	13 4	23 9½
1971-1980.....	15 10	11 4½	10 10½	21 2½	22 9½
1981-1990.....	13 4½	8 7½	9 11½	17 2	23 2½
1991-2000.....	14 9½	10 8	9 4½	19 7½	20 6½
General average.....	13 1½	9 5	10 4½	13 5½	19 3½

\* The affri was an ill-looking, little horse, used chiefly in farm-work.

TABLE IV.—AVERAGE PRICE OF SHEEP AND HOGS, BY DECENNIAL PERIODS.

Decade.	Muttons, highest price.	Muttons.	Ewes.	Lambs.	† Porcelli.	† Porci.	Sows.	Boars.	† Porcelli.
1861-1870.....	s. d. 1 5	s. d. 1 1½	s. d. 1 0	s. d. 4 4½	s. d. 0 7½	s. d. 2 2½	s. d. .....	s. d. 2 6	s. d. .....
1871-1880.....	1 5½	1 3	1 2½	8 8½	1 6½	3 3½	3 6½	4 2½	6 ½
1881-1890.....	1 11	1 5½	1 3½	8 8½	1 9½	2 5½	2 9	4 6½	2 6½
1891-1900.....	1 10½	1 3½	0 11½	4 5½	1 8½	2 6½	3 3½	5 1	2 6
1901-1910.....	1 9½	1 5½	1 4	4 5½	1 8	2 10½	3 3½	8 3	4 6
1911-1920.....	2 2½	1 6½	1 1½	9 ½	2 1	3 5½	2 8½	8 3	5 ½
1921-1930.....	2 1½	1 6	1 3	9 ½	1 11½	2 8½	3 9	5 7	5 ½
1931-1940.....	1 8	1 2½	1 ½	6 ½	1 7½	2 8½	3 6½	4 3½	4 ½
1941-1950.....	1 6½	1 2½	0 9½	7 ½	1 10½	2 8½	3 3½	3 3½	5 ½
1951-1960.....	1 1½	1 8½	1 4½	8 ½	1 7½	3 1½	4 7½	4 4½	6 ½
1961-1970.....	2 3	1 7½	1 6½	10 ½	2 3½	3 8	5 1	5 0	5 ½
1971-1980.....	2 2½	1 9½	1 4½	10 ½	1 9	3 2½	3 1	4 ½	7 ½
1981-1990.....	1 9½	1 4½	1 2	9 ½	1 5	3 3	2 7½	4 0	6
1991-2000.....	2 ½	1 4½	1 ½	1 ½	1 6½	3 2	3 11	5 6½	4 ½
General average.....	1 10½	1 5	1 2	8	1 8	2 11½	3 4½	4 7½	5 ½

† Porcelli is supposed to mean lean hogs; Porci, fatted hogs; and Porcelli, sucking pigs.

TABLE V.—AVERAGE PRICE OF POULTRY, BY DECENNIAL PERIODS.

Decade.	Capons.	Cocks.	Hens.	Fullets.	Geese.	Goatings.	Ducks.	Pigeons, per dozen.
	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>	<i>Pence.</i>
1961-1270.....	2½	1½	1½	1½	2½	2	1½	1½
1271-1280.....	1½	1½	1½	1½	2½	2	1½	3½
1281-1290.....	2½	1½	1½	1½	2½	1½	1	2½
1291-1300.....	2½	1½	1½	1½	3½	1½	1½	3½
1301-1310.....	2½	1½	1½	1½	3½	2½	1½	3½
1311-1320.....	3	1½	1½	1½	4½	2	2½	3½
1321-1330.....	3	1½	1½	1	3½	2½	2½	4½
1331-1340.....	2½	1½	1½	1½	3½	2½	1½	3½
1341-1350.....	2½	1½	1½	1½	3½	2½	1½	3½
1351-1360.....	3½	1½	2½	1½	4½	2½	2½	3½
1361-1370.....	4	2½	2½	1½	4½	2½	2½	6½
1371-1380.....	3½	2	2	1½	4	2	2½	4
1381-1390.....	3½	2	2	1	3½	3	2	4
1391-1400.....	3½	1½	1½	1½	4	2½	2½	4½
General average.....	3	1½	1½	1	3½	2½	2	3½

TABLE VI.—AVERAGE PRICE OF WOOL, BY DECENNIAL PERIODS.

Decade.	Wool, (great.)	Lamb.	Pound.	Decade.	Wool, (great.)	Lamb.	Pound.
	<i>s. d.</i>	<i>s. d.</i>	<i>d.</i>		<i>s. d.</i>	<i>s. d.</i>	<i>d.</i>
1960-1270.....	2 3	1 3½	2½	1341-1350.....	1 8½	1 0½	3½
1271-1280.....	2 3½	3 0½	3½	1351-1360.....	1 7½	1 0	2½
1281-1290.....	2 2½	2 2	3½	1361-1370.....	2 3½	1 6½	.....
1291-1300.....	1 11½	1 4	2½	1371-1380.....	2 8½	1 10½	2½
1301-1310.....	2 3	2 0½	3½	1381-1390.....	2 0	1 5½	.....
1311-1320.....	2 5½	2 4½	3½	1391-1400.....	2 0½	1 3	4½
1321-1330.....	2 4½	2 0½	4½				
1331-1340.....	1 9½	1 3½	3	General average....	2 1½	1 11½	3½

The prices in the first column refer to the fleeces of sheep, and those in the second to fleeces of lambs. The average weight of the fleece is 1 pound 7½ ounces.

TABLE VII.—AVERAGE PRICE OF HIDES, BY DECENNIAL PERIODS.

Decade.	Ox.	Cow.	Horse.	Stott.	Horse, (tawed.)
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
1960-1270.....	2 3½	1 9½	0 10	0 9½	.....
1271-1280.....	2 3½	1 10½	.....	1 0½	.....
1281-1290.....	1 6½	1 6½	1 0½	1 0	1 10
1291-1300.....	2 2	1 9½	0 11½	0 11	.....
1301-1310.....	2 8½	2 1½	1 1½	0 11½	1 5½
1311-1320.....	2 6	1 11½	0 11½	.....	1 4
1321-1330.....	2 7½	1 8½	1 6½	1 0	2 2
1331-1340.....	2 7	1 11½	1 6	.....	1 11½
1341-1350.....	2 6½	1 8	0 10	.....	1 7½
1351-1360.....	1 8½	1 5½	.....	.....	2 2
1361-1370.....	2 1½	1 6½	2 0	.....	2 2
1371-1380.....	1 9½	1 6½	.....	.....	1 6½
1381-1390.....	1 6½	1 3½	.....	.....	2 4
1391-1400.....	1 10½	1 3½	2 0	.....	1 8
General average.....	2 2½	1 8	1 4½	0 11½	1 10



TABLE VIII.—AVERAGE PRICE OF CHEESE, BUTTER, AND EGGS, BY DECENNIAL PERIODS.

Decade.	Cheese.				Butter.					Eggs.
	Wey, (196 lbs.)	Stone, (14 lbs.)	Clove, (7 lbs.)	Pound.	Wey, (196 lbs.)	Stone, (14 lbs.)	Clove, (7 lbs.)	Gallon.	Pound.	
1860-1870	s. d. 10 1	d. 7	d. .....	d. .....	s. d. 9 9	d. 7½	d. 4	d. 4½	d. .....	d. 3½
1871-1880	9 8	6½	.....	.....	9 9	9½	5½	6½	.....	4
1881-1890	8 11½	6½	.....	.....	8 9½	7½	5	6	.....	3½
1891-1900	9 7½	7½	.....	.....	.....	8½	.....	6	.....	3½
1901-1910	9 9	8	5½	.....	.....	9	5½	6½	.....	4½
1911-1920	11 7½	9½	4½	.....	.....	16	.....	9	.....	4½
1921-1930	11 3½	10½	5	.....	.....	.....	5	9½	.....	4½
1931-1940	10 1½	9	4½	.....	10 0	.....	5	7½	.....	4½
1941-1950	8 4	8	4½	.....	9 0	.....	4½	8½	.....	4½
1951-1960	10 9½	.....	5	.....	.....	.....	4½	8½	.....	5
1961-1970	10 2½	.....	4½	.....	10 0	.....	5	9	.....	4½
1971-1980	9 5½	.....	4½	.....	.....	.....	4½	9½	.....	5½
1981-1990	9 6	.....	4½	.....	.....	.....	4½	6½	.....	5
1991-2000	10 2	.....	4½	.....	.....	.....	4½	8	1	5½
General average	9 11½	8	4½	.....	9 6	9½	4½	7½	.....	4½

TABLE IX.—AVERAGE PRICE OF WAX, CIDER, APPLES, ETC., BY DECENNIAL PERIODS.

Decade.	Wax, (lb.)	Cider, (tun of 252 gins.)	Apples, (qr.)	Charcoal, (qr.)	Sea-coal, (qr.)	Fagots, (100.)
1860-1870	d. 6½	s. d. 10 5½	s. d. 0 6½	d. 3½	s. d. .....	s. d. 1 0
1871-1880	6½	10 2½	0 8	8	0 9	1 11½
1881-1890	5	10 4½	0 10½	7½	1 0	2 7½
1891-1900	7½	11 2½	0 7½	5½	1 0½	2 7½
1901-1910	7	10 5½	0 9½	6	0 10	2 6½
1911-1920	6½	10 6½	1 4½	.....	1 1	2 7½
1921-1930	6½	13 6½	0 11½	8½	1 0	3 6½
1931-1940	6½	10 4½	0 8½	6½	1 0	2 11½
1941-1950	6½	10 1	0 6½	6½	0 7	2 7½
1951-1960	7	12 4	0 4½	8	3 5½	5 6
1961-1970	7	16 1½	.....	10½	2 4	2 7½
1971-1980	6½	13 4	.....	10	1 11½	2 6½
1981-1990	5½	9 2½	.....	.....	.....	2 4
1991-2000	6½	.....	.....	10½	.....	2 10
General average	6½	11 4½	0 9	7½	1 4½	2 2½

TABLE X.—AVERAGE PRICE OF HERRINGS, FOREIGN PRODUCE, ETC., BY DECENNIAL PERIODS.

Decade.	Herrings, (M = 1200.)	Wine, (dos. gins.)	Pepper, (lb.)	Oil, (gins.)	Sugar, (lb.)	Almonds, (lb.)	Ginger, (lb.)	Saffron, (lb.)
1859-1870	s. d. 4 7½	s. d. 2 1	s. d. 0 11½	s. d. .....	s. d. 1 4½	d. 3	s. d. 1 9½	s. d. 13 0
1871-1880	5 1	2 6½	1 0	0 8	.....	1½	.....	.....
1881-1890	6 4½	2 6	0 9½	.....	0 9½	.....	.....	5 5
1891-1900	6 9	1 11½	1 3½	1 0	1 8	2½	.....	6 0
1901-1910	7 0½	4 0	1 ½	1 6	1 ½	1½	.....	5 0
1911-1920	10 2½	3 9½	0 11	0 11	.....	.....	1 3½	4 2
1921-1930	8 3½	4 4½	1 3½	1 ½	1 9	1½	1 3½	5 0
1931-1940	9 2½	4 5	1 3½	0 11½	0 11	1	1 4	4 2½
1941-1950	9 3	10 1½	1 6½	1 1½	1 9	2½	1 9½	15 0
1951-1960	13 8½	8 1	2 4	1 5½	.....	3½	1 4	.....
1961-1970	13 4	8 11½	1 5½	1 4½	.....	3	1 6	15 8
1971-1980	14 4½	9 6	1 6	1 4½	1 9	3	1 5	11 11
1981-1990	15 3½	7 11½	0 11½	1 4½	1 5½	3	1 5	11 11
1991-2000	18 2½	6 6½	1 0	1 2½	1 6½	3	2 3	15 11
Average:	.....	.....	.....	.....	.....	.....	.....	.....
1859-1930	7 5	3 11½	1 1½	1 ½	1 ½	2	1 6½	8 5½
1931-2000	15 0	8 2½	1 4½	1 4½	1 7	3	1 7½	14 2

TABLE XI.—AVERAGE PRICE OF CANVAS, LINEN, AND WOOLEN CLOTHS, BY DECENNIAL PERIODS.

Decade.	Canvas (coarse.)	Hair-cloth.	Linen.	Table- linen.	Cloth.	
	Doz. ells.	Doz. yds.	Doz. ells.	Doz. ells.	Best.	Second quality.
	Pannus of 24 yards.	Pannus of 24 yards.				
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1260-1270	2 3½	-----	5 0	3 0	4 2 0	1 12 3
1271-1280	1 6	-----	5 7½	2 5½	4 11 9	1 9 1½
1281-1290	1 5½	-----	2 6	2 10½	3 11 8	1 19 2
1291-1300	2 2½	3 9	3 8½	3 9½	4 3 4	1 17 10
1301-1310	2 6	2 0	3 8½	3 1½	3 15 3	1 6 2½
1311-1320	3 0	4 0	4 0½	4 1	4 4 8	1 13 2½
1321-1330	2 10	5 0	4 0½	4 1	3 14 0	1 14 10
1331-1340	2 8	4 0	4 0½	4 0½	3 19 7½	1 7 0
1341-1350	2 5½	3 8½	4 4	3 0½	2 5 0	1 19 5½
1351-1360	6 5	-----	8 1½	5 3½	2 10 2½	2 10 2
1361-1370	5 3½	11 9	11 6½	6 8	2 5 6	2 1 9½
1371-1380	5 1½	8 0	9 7½	7 6	4 10 8½	2 10 2
1381-1390	3 9½	6 9	7 5	7 2	3 19 7½	2 5 6
1391-1400	3 9½	5 10	6 1½	6 4½	3 17 8½	2 1 9½
Average:						
1260-1350	2 6½	3 9	4 1½	3 3	3 19 8	1 13 2½
1351-1400	4 10½	8 1	6 4½	6 7½	4 3 2	2 6 6½

TABLE XII.—AVERAGES PRICE OF BUILDING-MATERIALS, LATHS, ETC., BY DECENNIAL PERIODS.

Years.	Laths.	Plain tiles.	Cresta.	Tile-pins.	Lath-nails.	Board-nails, &c.	Millstones.	
	Per 1,000.	Per 1,000.	Per 1,000.	Per 1,000.	Per 1,000.	Per 1,000.	Foreign.	Bucks.
	s. d.	s. d.	s. d.	d.	s. d.	d.	s. d.	s. d.
1261-1270	4 4½	-----	2 3	1	0 9½	2½	34 8	-----
1271-1280	4 4½	3 5½	-----	-----	0 8½	3½	36 9	-----
1281-1290	3 6	2 11½	-----	1½	0 8½	3½	36 6	-----
1291-1300	4 5½	2 5½	3 4½	1½	0 9½	3½	48 9	-----
1301-1310	4 2½	2 11	4 6½	1	0 9½	3½	46 1	-----
1311-1320	4 5½	2 7½	2 10	1½	0 10	3½	44 0	12 6
1321-1330	4 1½	2 5½	3 1	1½	0 9½	3½	37 8	7 6
1331-1340	5 6½	2 4½	2 4	1½	0 9	3½	39 10	-----
1341-1350	5 6½	2 5½	2 10½	1½	0 8½	3½	30 0	12 9
1351-1360	7 1	5 2½	6 10½	3½	1 7½	5½	56 3	15 5
1361-1370	7 3	5 4½	10 10	3½	1 7	7½	68 4	14 9½
1371-1380	6 3	4 7½	8 11½	2	1 4	6½	87 10	-----
1381-1390	7 9½	3 9½	10 5½	3	1 4½	6	66 8	13 4
1391-1400	7 10	4 2½	8 7	3	1 3½	5½	66 2	14 1
Average:								
1261-1350	4 5½	2 9½	3 1	1½	0 9½	3½	39 4	10 11
1351-1400	7 2½	4 7½	9 1½	3	1 5½	6½	69 1	14 5

Comparing the rates paid for threshing in the thirteenth and fourteenth centuries, as shown in the foregoing tables, with those paid for the same labor in 1767, as given by Arthur Young in his Northern Tour, Mr. Rogers concludes that the medieval laborer was rather better paid than his descendant in the eighteenth century; for "while the laborer in Arthur Young's time got one-twenty-fourth part of wheat and barley, and about the one-and-twentieth part of oats, the laborer of the fourteenth century received rather more than an eighteenth in wheat, a twenty-second part of barley, and a little less than a fourteenth part of oats. These proportions are taken from the eastern counties, in which the rate for threshing wheat was above the average, that of barley rather less, and that of oats rather more. If, however, the other districts had been

taken, the rate would still have been favorable to the medieval laborer, though not to the extent which may be inferred from the case of the eastern counties." \* \* In this connection Mr. Rogers remarks that "no kind of labor appears to suggest more distinctly than that of threshing what was the ordinary rate of wages to an agricultural laborer." Elsewhere he refers to a practice not uncommon among farm-servants of contracting for the produce of cows, and even ewes, (for ewe-milk cheese was not unknown,) at an annual rent. This he regards as "an evidence that the condition and means of the persons who entered into hired service at annual wages and allowances with the lord's bailiff was far better than anything of which our modern experience informs us as to the condition of the descendants of these farm-servants in our own time." Indeed, he once expresses the opinion that the wages of labor generally, in the period embraced in the above tables, were "virtually higher than they have been from 1825 up to within the last five years, if, indeed, they were not higher than even they are now."

From an account of the expenditures of Merton College in rebuilding the bell-tower of their chapel, Mr. Rogers obtains the wages paid for certain kinds of labor for a period about half a century later than the conclusion of that embraced in his tables, the structure in question having been commenced in May, 1448, and concluded in May, 1450. "The laborers," says he, "are well paid. The chief mason, besides an annual pension of 20s., receives, whenever he is at work, 8*d.* a day. It appears that he resided in Oxford, for the college purchases straw and hay of his wife. The other masons get a fraction under 7*d.* a day for the greater part of the year, and from 5½*d.* to nearly 6*d.* in the three winter months. The carpenters who are merely engaged in rough work are paid 4*d.* a day, as are also the laborers, who seem to wait on the masons. The quarrymen are paid from 4½*d.* to 4*d.* These wages may, if we estimate them in modern money, be reckoned by the multiple of 12, and fully bear out that which has been often stated that the condition of laborers relatively to the price of the necessities of life was high, not only in the period before us, but, as in this case, fifty years afterward; for the price of wheat during the first half of the fifteenth century was actually below the general average of the fourteenth."

It may be remarked here that the relation of wages to breadstuffs in the thirteenth, fourteenth, and fifteenth centuries, as compared with the relations between the same things in the eighteenth and nineteenth, does not alone furnish a sufficient test of the comparative condition of the laborer at these two periods; for even in the eighteenth century, to say nothing of the wonderful mechanical improvements of more recent times, the advance of the industrial arts must have placed within reach, even of the limited means of the working classes, many comforts and conveniences which were previously unknown to them. It must be confessed, however, that the progress of the nation has dealt very unequally with the descendants of the villeins and other servile classes of early medieval times; for while millions of these descendants, as farmers, tradesmen, merchants, manufacturers, and members of the learned professions, are now in the full enjoyment of political liberty and the blessings of modern civilization, there is a class, comprising the bulk of the agricultural laborers and the unskilled operatives of the manufacturing and commercial towns, whose condition is all the more wretched from its violent contrast with that of the more fortunate classes, and whose lot in life could scarcely have been more hopeless had they been born in the twelfth century instead of the nineteenth.

## MANNERS, HOUSEHOLD EXPENSES, ETC.

To the foregoing tables may be added, in a less concise form, information derived from (1) the household-roll of Eleanor, Countess of Leicester, for A. D. 1265, and (2) the "Expenses" and "Accounts and memoranda" of Sir John Howard, first Duke of Norfolk, for the ten years from 1462 to 1471, inclusive. These quaint and interesting documents, together with the accounts of the executors of Eleanor, consort of Edward I, bearing date A. D. 1291, were prepared for publication by Beriah Botfield, esq., who also wrote a valuable introduction explaining the papers, and giving some account of the lives of the persons to whom they relate. The papers and introduction together constitute a royal-octavo volume of 716 pages, which was issued from the Shakespeare Press, London, in 1841. The two earlier documents are printed in middle-age Latin; the other in the English of the time in which it was written. In addition to the statistical information which they contain, they furnish curious illustrations of the manners of the periods to which they respectively relate, and they also contain interesting memoranda of the lives of persons conspicuous in English history. The period between the insurrection of the barons, in the reign of Henry III, and the contest of the rival houses of York and Lancaster, in the fifteenth century, was signalized by some of the most important changes which the manners and institutions of the English people have ever undergone, and the effect of these changes upon the condition of the people is strikingly illustrated by a comparison of the accounts and memoranda of Sir John Howard with the household-roll of the Countess of Leicester, which was written about two hundred years earlier. "The increase of population," says Mr. Botfield, "has occasioned a greater division of labor, and those arts which at the former period were generally carried on by the domestics of every family of consequence, now [i. e., in the time of Sir John Howard] support persons who make them the means of an independent livelihood. Brewing and baking have become profitable trades, and the tailor has ceased to be a domestic servant. \* \* \* Notwithstanding the country had long suffered from civil commotions, it is obvious that wealth is greatly increased; inns have been established in country towns; a traveler no longer takes with him his wine and provisions, as did the Earl of Leicester; taverns have arisen in London, and become places of common resort for people of rank; 'Mastres Isabell' lodges at the Bell in Westminster, and her father, Sir John, takes his wine and waffers at the Sun in Lombard street, or breakfasts with my Lord Audley at the Greyhound in Eastcheap. The same increase of wealth has brought with it a corresponding degree of luxury in dress and the general conveniences of life. The countess wore some garments of sheepskin, and was content with woolen gowns of which the nap was shorn more than once. 'My Lady Howard has her 'plytes of fyne lawne,' and Humphrey Gentili, the Lombard, supplies Sir John with costly cloths of damask, satin, and velvet upon velvet 'pyrled with goold.' In the age of the countess ladies arranged their dress with skewer-like implements, but fair 'Mastress Anne' Howard used 'fyne pynnes.' \* \* \* Of all things the means of communication between distant places was, perhaps, the least improved. Roads and bridges were still wanting. Dobbe, the shepherd, guides the Countess of Leicester from Odiham to Porchester, and Sir John, on his road to Chester, gives a penny 'to a mayde that tawte the way ovyr Tyddysbery (Didsbury) forthe.'

"It would be easy to institute a more minute and less desultory com-

parison between the manners of the two periods, as illustrated by the present work. The accounts of Sir John Howard show the state of almost every department of domestic economy in his time. We have payments to bakers and brewers, builders, armorers, and shipwrights; silversmiths, mercers, drapers, tailors, and cordwainers; to sailors, soldiers, and servants; they contain notices of farming and stocking fish-ponds; and, taken in conjunction with the Paston letters, they furnish the liveliest picture we possess of any period anterior to the invention of printing."

The household-roll of the Countess of Leicester contains considerable curious information in regard to the diet of both the upper and lower classes in her time, but so much of it as would be suitable to the present work has been substantially anticipated. The following list, however, will serve to show the prices of a number of articles then comprehended under the general term "spicery," and but little used except among the wealthy:

Sugar, per pound, 1s. to 2s.; almonds, 2½d. to 3½d.; anise, 3d.; cinnamon, 10d.; galingal, 1s. 6d. to 3s.; ginger, 10d., 1s., 1s. 6d., 2s.;\* pepper, 8d., 10d., 1s.; cloves, 10s. to 12s.; cummin, 2d.; fennel, dried, 3d.; rice, 1½d.; saffron, 10s. to 12s.

In connection with the subject of condiments, it may be noticed that mustard, verjuice, and vinegar were used in considerable quantities.

Items occasionally occur for the purchase of table linen, plates, dishes, and drinking cups. In respect to wearing apparel the roll contains little information. Woolen cloths were the chief material of female apparel, but the following materials are also mentioned, viz, linen, sinton,† scarlet and rayed or striped cloths of Flemish, French, or Italian make, *pers*, or blue cloth, manufactured chiefly in Provence, russet, say or serge, and blanchet, or blanket, a name supposed to mean flannel. When woolen cloth was new the nap was generally very long, and after wearing it some time it was customary to have it shorn, a process which was repeated as long as the cloth would bear it. Thus the Countess of Leicester sends Hicqe, her tailor, to London to get her robes reshorn.

There are two passages in the roll in relation to the cost of a pocket breviary for the use of Eleanor de Montford. Twenty dozen of fine vellum, purchased for this book, cost 10s., and the writing, which was executed at Oxford, cost 14s.

A noteworthy circumstance connected with this document is the fact that the household servants mentioned therein are generally distinguished by Saxon names, such as Hande and Jacke of the bake-house, Hicqe the tailor, Jacke the keeper of the countess's harriers, Dobbe the shepherd, Digon, Gobithesty, and Treubodi, who were often employed in carrying letters, and Slingaway, a courier, whose name was probably descriptive of his gait and manner.

The accounts of Sir John Howard relate to a period posterior by from sixty to seventy years to the date at which Mr. Rogers' tables terminate. They were transcribed from the original manuscripts, of which, at the time of the publication of Mr. Botfield's book, there were two in existence, one of them forming a part of the valuable archæological collection of Sir Thomas Phillips, bart., at Middle Hill, while the other was the property of the Duke of Norfolk. Mr. Botfield states that the only

\*When several different prices are given they are obtained from different entries. It seems strange, however, that the price of ginger should have varied in so short a time from 10d. to 2s.

† This has been interpreted to mean satin or very fine linen.

liberty taken with the text has been that of extending contracted words and inserting a few points. In the published work the modern printed characters are necessarily used instead of the manuscript letters of the fifteenth century, but the quaint and irregular spelling of the original documents is faithfully preserved, the same word being sometimes spelled in two or three different ways in a single entry.

The accounts were kept by a steward who refers to Sir John as "my mastyr;" but occasional entries are found in the handwriting of Sir John himself, and these are indicated by printing them in italics. The "Expenses" and "Accounts and memoranda" cover 473 pages of Mr. Botfield's book, and the following extracts embrace only occasional entries, which have been selected so as to include the prices of a considerable variety of articles and the wages of different kinds of labor. In many of the entries a few unnecessary words are omitted. Thus, the entry on page 111, "Fore costs fore my lady lynyng at London be xiiij dayis in bred and vytaylle, xvijs. jd.," is preceded in the original by the words, "Item, the same day my master payd to Seynclew." Occasionally explanatory words are interpolated and put in parentheses, and in a very few instances easily distinguishable by the form of expression, the language of the original entry, for the sake of clearness or brevity, has been entirely abandoned. The following are the extracts, with the years to which the different entries relate:

## A. D. 1462.

Item, for makyng off a jacket off crymysyn clothe ffor my sayd lord.....	ij. s. iiij. d.
Item payd for lynyng to the said jacket.....	xij. d.
Item, for makyng off a long gown and lynyng the slevys.....	ij. s.
Item, payd ffor makyng off a short gown off roset.....	xx. d.
Item, payd ffor ij zerdys off blakkefryce.....	ij. s. ob.
Item, payd ffor makyng off my lordys tawny cloke lynyd wyth velvet.....	xvj. d.
Item, payd ffor makyng off a jaket off the kyngys levery.....	xx. d.
Item, for lynyng to the same jakett.....	xij. d.
Item, payd ffor browdryng off a kloke.....	xvj. d.
Item, payd to John Frawneys ffor to pay to John Kooke ffor ffluryng off my lordys long gowne.....	viiij. s. ix. d.
Item, payd ffor a new tronke ffor my lord whych was delyvared to Willyam off Ward- rope.....	x. s.
Item, my mastyre payd ffor a whyte bonett for my lord.....	xvj. d.
Item, my mastyre payd ffor ij. zerdys off blakke velvet.....	xxiiij. s.
Item, payd ffor a horsee to Rogere Tego.....	xxx. s.
Item, payd ffor a daggere ffor my sayd lord.....	xx. d.

## A. D. 1463.

Item, my mastyre payd at Donwyche ffor a samon ffor my sayd lord.....	xx. d.
Item, my mastyre payd the xj. day off Jully, at Ypewyche, ffor ij. tonns off Spanyshe wyne ffor my seyde lord.....	xvj. marc.
Item, ffor xx. drynkynng dyscheys.....	x. d.
Item, v. doseyn platerys.....	iiij. s. iiij. d.
Item, ffor v. doseyn sawceres.....	x. d.
Item, payd ffor iiij. c. stokfyscheys.....	iiij. li.
Item, viij. pypys salt.....	xiiij. s.
Item, iiij. barellys salt.....	ij. s.
Item, payd * * * * ffor ij. peyre off morrey hosyn ffor my mastyr.....	xiiij. s.
Item, payd to Thomas Goldamythe ffor a chene off gold.....	xl. s.
Item, to Thomas Thorppe ffor a peyre shoyis.....	vj. d.
Item, ffor di. † a pownd of dynamoun †.....	x. d.
Item, ffor v. li. datys.....	ij. s. vj. d.
Item, vj. li. almundys.....	xviij. d.
Item, ffor j. li. sugar.....	xviij. d.
Item, the same day payd ffor a potelle wyne.....	v. d.
Item, payd to the cordwaner ffor ij. peyr shoyis and a peyre botuys ffor my mastyr.....	ij. s. vj. d.

\* Black frieze.

† One-half.

‡ Cynamaun.

Item, payd to Clayson for v. pypys of byer, the sayd day, iiij. of them for my mastery	
balynger spent to Caleyys ward, and j. pype thys day	xxvj. s. viii. d.
Item, payd the sayd day for xvij. yerdys of lynen kloyt, bowyt of Dene of Herwysche	v. s. liij. d.
Item, for a pot off trayacle for my lady	iiij. d.
Item, for an elle off canvas	iiij. d.
Item, payd for a peyre knyvs for my mastyr	v. d.
Item, payd the sayd day for wayshyng of my masterys shyrt	j. d.
Item, payd the xxx. day of Octobyr, for ij. bosshellys otys, at the Holt	vj. d. ob.
Item, payd for a goys* for my mastyr	iiij. d.
Item, payd for a peyre shoys for John Reschardde, the scheld t of the stabylle	vj. d.
Item, my mastyr paid the xvj. day of Novembyr, for ij. lodys hay	vij. s.
Item, for floytynge off a peyr botys, for John Davy	vj. d.

## A. D. 1464.

Item, payd for a payr hosyn for the chyld off the stable	x. d.
Item, for ij. breshys	iiij. d.
Item, for iiij. zerdys and di. off damaske, to John Martyn	xxxvj. s.
Item, the same day my mastyr payd for ij. zerdys frusteyn blakke	ij. s. liij. d.
Item, the same day for x. zerdys off Chawmpeyn clothe	iiij. s. vii. d.
Item, to Thorp for a shyrt the same day	xij. d.
Item, for ij. mennys dyner the same day	iiij. d.
Item, the same day payd for x. zerdys sarsynet to Thomas Rowson, merser in Chepe- syde	xx. s.
Item, the same day payd to my masterys taylor for makynge off a tawny gown for my mastyr	iiij. s.
Item, the same day for iiij. off your mennys dyner at Lambythe	viii. d.
Item, the same day for x. zerdys off blew bokeram, prise the zerd vi. d.	summa, v. s.
Item, the sayd day payd for a blakke bonet for my mastyr	xx. d.
Item, the sayd kay payd for a quarte wyn	ij. d.
Item, the same tyme payd for a li. candyllys	j. d. ob.
Item, the same day payd to John Smythe, sadeler, for ij. sadelys	xxiiij. s.
Item, the same day my mastyr payd to the smyth in Stanstret for shoyng of xx. shois	ij. s. vj. d.
Item, the same day payd for a quarter otys	xviij. d.
Item, for a payr sporys † for Jake of stable	viiij. d.
Item, the same day my mastyr payd for a c. and a quarter of saltfyshe	xv. s.
Item, for shoyng of a horse at Lanam	ij. d.
Item, payd for a pype of new Gascoyne wyn	xxxv. s.
Item, the xxvj. day of June, my mastyr payd to Scraton for a zerd and a quarter of blakke clothe	xvj. d.
And I payd the same tyme fore a scherte and for a peyer shoes fore Jake	xxj. d.
Item, the same day payd to a man of Colchestre, for xvij. ellys of corse Holond clothe	vij. s. j. d.
Item, the vj. day of Jule, my mastyr payd to Payne, for iiij. dayis werke	viiij. d.
Item, my mastyr payd for xx. lenges ‡	viiij. s.
Item, the same day my mastyr payd for x. coddys §	viiij. s.
Item, the iiij. day of Octobre, my mastyr payd for ij. ellys of fyn Holond for a shyrt for hym selfe	liij. s. vj. d.
Item, payd for a payr botez for my master	iiij. s.
Item, my master gaffe to the bryngere of them	j. d.
Item, payd fore a payre shoes and a payr pensons	xij. d.
Item, payd fore ij. payr shoes and ij. payr sokkes for m. Thomas and m. Nichol- las	xvj. d.
Item, payd fore a payr hosen for Lew	xxj. d.
Item, payd for a shert for the same Lew	ix. d.
Item, the xxviiij. day of Desembre, my master payd to yonge Wendam fore a daggor	liij. s. iiij. d.
Item, the same day my master payd to Thomas of Wardroppe, fore makeinge of my ladyis gowne of cremson velvet	vj. s.
The xviiij. day of Desembre my master payd to Lumpner, the mersere, for xij. yerdys of crymysen velvet, pryse the yerd, xvij. s.	summa totalis, xj. li. xij. d.
For xij. yerdys of fyne cremysen velvet, pryse the yerd, xvij. s.	summa, x. li. liij. s.
Receyved for a cowes hyde	xv. d.
Receyved of John Noryse for talow of the said cow	xix. d.
Receyvid of John Doket for a boloke hyde	xij. d.
For vj. li. talow of the said bollokke	v. d.
For the fate and the offaile of a boloke	liij. d.
Paid fore a payre shoes fore Anne Fuller	liij. d.

\* Goose.

† Child.

‡ Spurs.

§ Ling.

¶ Cod.

Fore clowting of master Danyelles shoes.....	ij. d.
For makeuge of ij. petycotes for mastres Marget and m. Anne .....	iiij. d.
For iij. li. candelles.....	iiij. d. ob.
Fore a pygge.....	iiij. d.
Fore ij. saltfyshe.....	x. d.
Fore a kow bout at Blakborow at Seynt Katerynes feyre.....	vij. s. v. d.
Paid to John Pepyne for a bullok.....	iiij. s. viij. d.
For a pekke of otemelle.....	iiij. d.
Fore a quarter beffe.....	xx. d.
For vj. spones.....	ob.
For xv. bowstryngges.....	v. d.
For a shepe.....	xx. d.

## A. D. 1464-5.

Item, my master gaffe to the Kynge a cawser* called Lyard Duras, the same day, the wiche coste my master.....	xl. li.
Item, my master gaffe to the Quene a cower called Lyard Lewez, the wiche cost my master.....	viiij. li.
Item, to Cumberton for a letelle panne, the same day.....	vj. d.
For an axe for the chambre.....	viiij. d.
For botehyre fro London to Grenewyche.....	iiij. d.
Item, for a li. of whyzthe soppe.....	ij. d. ob.
For a di. an unnee of tawny sylke.....	vij. d.
To Arnold, gooldamythe, for a jasynt sett in goold.....	xx. s.
Payd for a doblet for Boton.....	iiij. s.
For vi. elles canvas for the chambre at Eltam.....	xxj. d.
For a payr shone for Boton at Eltam.....	vij. d.
For aboying Thurstone's horse.....	iiij. d.
For Thurstone's hors Senete at Eltam.....	iiij. d.
For makynge of Boton's hosez and his gowne.....	xvj. d.
The same day, in expenses of iij. menne.....	viiij. d.
For iij. yerdes of russet fryset fore his (Sir John's) longe gowne of velvet.....	ij. s. iiij. d.
For iij. yerdes and di. of blakke fryse for his russet gowne of velvet.....	ij. s. vij. d. ob.
For iij. yerdes of blak fryse for his gowne of blakke.....	xxij. d.
For a yerd of blak sarsenet fore lynynge for ij. typettes of russett velvet.....	v. s.
Item, the same day my master gaff to Ser Thomas a Borow a dagger that cost hym.....	viiij. s. iiij. d.
Item, the iiij. th day of Feverer, my master payd fore his soper at the Grewd,† in Eschepe.....	iiij. s. ij. d.
Item, payd for ij. yerdes and a quarter of cremyseu engreyned for a gowne for mastres Margret.....	xvj. s. vij. d.
For a furre.....	viiij. s. iiij. d.
Fore xij. elles canvas, prise the elle, iiij. d.....	iiij. s.
Item, my master gaff to a barbour.....	iiij. d.
Fore a peyre shoes and a peyre of patyns.....	xij. d.
For a boke conteynynge vij. quayres off fyne paper.....	ij. s. j. d.
Fore lynynge of my master's longe blak gowne.....	iiij. s. vij. d.
Fore makenge of the said gowne.....	xx. d.
Item, the xxvj. day of Janevere, paid fore vij. menes dyners.....	x. d.
For a peyre shoes for my master.....	viiij. d.
Payd to a barbor.....	iiij. d.
Poe wyne and waffers at the Sonne, in Lumberd strete.....	ij. d.
Item, the ij. day of Feverer, payd Mastres Ysbelles costs at the Belle at Westemester.....	xvj. d.
Item, the same day, paid fore iiij. mennes sopers that brout her to London.....	vi. d.
Item, paid for Braham soper at Lyncolnes Ynne, the same tyme.....	ij. d.
For a quarte malmesey.....	iiij. d.
For a quarte wyne for James Hobard and Solyard.....	ij. d.
Fore ij. mennes dyners.....	v. d.
For a li. candelles.....	ij. d.
Fore vj. mennes dyners.....	vij. d.
For Braham's dynere.....	ij. d.
For Braham's soper at Lyncolln Yn.....	ij. d.
To the cordwanere for shoes for my master.....	xij. d.
For an horse be iij. dayes.....	xx. d.
For wrytyng of a superviso.....	ij. d.
For vj. mennes sopers.....	xij. d.
To the barbor.....	ij. d.

\* Courser.

† Frieze.

‡ Greyhound.



Fore horseshyre to Stoke be iiij. dayis.....	ij. s. viij. d.
For botehyre fro Westemenster to London .....	iiij. d.
For a quarter coles .....	viiij. d.
Fore a flaken ale for my lady .....	x. d.

## A. D. 1435.

For ij. payre old shetes.....	iiij. s. viij. d.
Item, the xj. day of Jenevere, my master bout of Rygon x. coverlytys of taptry werke, a pece conteynynge xxx. flemyshe elles, and ix. peces conteynynge xx. flemyshe elles, every pece pryse the pece, xx. s. ....	summa, x. li. x. s.
Paid to Arnold, gooldsmythe, floore a tablett of goold .....	iiij. li. xx. d.
Fore ij. ryngges with stoones .....	xxv. s.
Fore a flaket of sylver .....	xx. s.
Bout of Arnold, gooldsmythe, a dyvyse of goold for Mastres Margret, the pryse thereof is.....	xl. s.
Paid for ij. yvery combes.....	xvj. d.
For ij. carpettes.....	xxiiij. s. iiij. d.
Item, the xv. day of Marche, my master bout of goldsmythe in Chepe sertayn selvere veselles, and my master to pay the said goldsmythe for every unnce .....	iiij. s.
Item, the day and yere above wreten, my master paid to Freman, his bedmakers, for makeinge of a bed wyth v. costres to the same .....	xx. s.
Item, paid hym for xxvij. li. lyere, pryse the li. v. d. ....	summa, xij. s. xl. d.
Item, paid hym xxix elles canvas, pryse the elle, v. d. ....	summa, xij. s. v. d.
Item, paid hym for viij. li. corde, pryse the li. v. d. ....	summa, iij. s. iiij. d.
Item, paid hym for v. li. di. of frenge, pryse the li., xvj. d. ....	summa, vij. s. iiij. d.
Item, paid hym for leags fore xij. coshones.....	v. s.
Item, paid him for vj. stone feders, pryse the stone, ii. s. ....	summa, xij. s.
Item, paid hym fore makeinge of the same koshons .....	ij. s.
Item, paid hym fore performynge of the valaunce.....	iiij. s. iiij. d.
Item, the yere a foresaid, and the xxviii. day of Marche, my master bout of Umfrey, the goldsmythe, a chaffer of silver weyinge xvij. unnces and a quarter, and my master paid hym therfor of old grotes.....	l. s.
And in new grotes.....	ij. s. vi. d.
A short gounne, clothe of cremysen velvet, pryse the yerd.....	xx. s.
A short gounne, clothe of tawny velvet, prise the yerd.....	x. s.
A sadylle, a lytylle harneys, & xij. reynes .....	xj. s. viij. d.
Item, John Hule, off the town off Cley, in Norfolk, owyth hym be oblygacion for a shype .....	xij. li.
Item, ffor a combe whete .....	iiij. s. iiij. d.
Item, for a payr shone for my lady .....	v. d.
Item, for a payr shone for mastres Margett .....	iiij. d.
Item, the same day my mastyr paid to Mawt Clerke, for a ram and xix. ewes, pryse the pece xx. d. ....	summa, xxxij. s. iiij. d.
Item, paid here the same day for v. lambes, pryse the pece xij. d. ....	summa, v. s.
Item, the same day my mastyr paid her ffor a sowe .....	ij. s.
Item, my mastyr paid her for a gander, iiij. bredegese and v. yonge goslynges, the prise of alle drawyth .....	iiij. s.
Item, the same day paid for a fferken ale.....	x. d.
Item, my mastyr paid to Cumberton for an hatte.....	ij. s. viij. d.
Item, for a payr sheres and a payr gloves for mastres Ysabelle.....	iiij. d.
Item, my mastyr paid to the cordwaner for ij. payr shoyis for him self.....	xvj. d.
Item, my mastyr hathe paid for ij. pelwes† of downe .....	vij. s. viij. d.
Item, for ij. tylers iiij. dayis, every day viij. obt .....	summa, iiij. s. iiij. d.
Item, for a laborer ij. dayis.....	xvj. d.
Item, for j. lode of sande.....	vj. d.
Item, ij. sakkes lyme .....	vj. d.
Item, for lx. fete of elmen borde.....	xx. d.
Item, for ij. carpenters iiij. dayis and di., the day viij. d. ob....	summa, vj. s. iiij. d. ob.
Item, the same day my mastyr paid for xxvj. li. flax.....	vj. s.
Item, for xij. li. dates .....	vj. s.
Item, for vj. li. reysons of Corauns.....	xv. d.
Item, for j. li. of powder of gynger.....	xvj. d.
Item, the same day my mastyr paid to a Ducheman for vj. ferkens of whyghte herenge .....	iiij. s. iiij. d.
Item, the same day my mastyr paid for xxxij. fresche herenges.....	vj. d.
Item, the same day my mastyr paid to James Peterson for a galone oyle.....	xij. d.
Item, the v. day, a quarter beffe, the prise .....	xix. d.
Item, paid for sewenge of ij. federbeddes, ij. bolsteres, and ix. pelwes.....	vij. s. vj. d.

\* Comb of wheat.

† Pillows.

‡ A halfpenny.

Item, the same day my mastyr paid for vij. payr of fyn gloves .....	ij. s. iiij. d.
Item, the xiiij. day of Aprylle, my mastyr paid to a draper in Canwey strete, for ij. yerdes of depe blew, prise the yerde, vj. s. iij. d. ....	summa, xij. s. vj. d.
Item, xxiiij. shepe, pryse .....	xlvij. s.
Item, xx. lambes, pryse .....	xxvj. s. x. d.
Item, xxx. pygges, pryse .....	xv. s.
Item, xij. fesaantes, pryse .....	xii. s.
Item, xxxij. galones mylke .....	ij. s. viij. d.
Item, xvj. banelles of syngelle bere, prise the barrelle, ij. s. ....	summa, xxxij. s.
Item, the same day my mastyr paid for di. a yerde of damaske .....	iiij. s. ij. d.
Item, for xvij. yerdes and a quarter of rede satyn, prise the yerde vi. s. viii. d. ....	v. li. xv. s.
And v. lytelle horse, the prise of a pece vij. s. ....	summa, xxxv. s.
Also my master muste pay fore a quarter whete. ....	v. s.
Also fore a fore horse I bowels thes day of the seyd Wever .....	xij. s.
And for a peyr gloves .....	ij. d.
A Balenger. } Item, the v. th yere of Kyng Edward the iiij. th, Thomas a Chambre sold a balynger of myn masters, the pryse in silver. ....	viiij. marc. vj. s. viij. d.
For xj. yerdes russet, ij. yerdes brode, prise the yerd, ij. s. v. d. ....	xxvj. s. vij. d.
To the Kyngges cordwaneres man fior ij. payre of shooz. ....	ij. s.
Fore ij. gerdels of sylke, with a harneys of sylver and geltt .....	vj. s. viij. d.
For ij. payre of murry hosen engreynd .....	xiiij. s.
Fore saraset fore his (Sir John's) tepet, and fore lynyng of hys gounys. ....	xij. s. v. d.
Item, my master paid for a hat ij. and bonettes for hym sellfe. ....	v. s. iiij. d.
Item, the same day my mastyr gaff to James Redesman a ryng, prise .....	v. s.
Item, geven to Roger Rey a ryng, the same day, pryse .....	xij. s.
Item, my master gaff to the heraudes the same day. ....	x. s.
Item, my master gaff to the monstrailes the same day. ....	x. s.
Item, my master gaff to the troumpettez the same day. ....	x. s.
For board of workemen engaged on some work for Sir John Howard, each man per diem .....	ij. d.
ij. c. of oken bord, for every hundred. ....	xxviij. d.
For x. stodes, pryse every pece iij. d. ....	summa, ij. s. vj. d.
For a beeme .....	viiij. d.
Fore iiij. smale stodes .....	iiij. d.
Fore a baye stoole .....	xij. d.
For iiij. moyneles to the same bay wyndow, pryse of every pece .....	ij. d.
Fore xj. day werke in carpentry .....	ij. s. viij. d.
For ij. dayis werke uppon a bay wyndow and a stodye .....	xij. d.
To John Cobdok off Sudbury for a day werke and a halff .....	vj. d.
Fore John Copdoke of Halsted for ij. di. dayes werke .....	iiij. d.
Fore ij. dayes werke of John Strete, prentys to the same John Copdok .....	iiij. d.
My master paid for his brekefast at Westemenster .....	ix. d.
Payd for John Deepayns botes .....	xiiij. d.
For a horsecambe .....	ij. d.
For carynge of a feder bed fro Westmenster to London. ....	ij. d.
My master payd to hys cordwanere fore ij. pair shone. ....	ij. s.
Fore a payr patyns for my master .....	iiij. d.
Fore a payre shoes fore mastres Marget .....	iiij. d.
My master payd fore a hatt .....	iiij. s.
My master paid for a typett fore my lord of Norfolke .....	xiiij. s.
Fore costes fore my lady lyinge at London be xiiij. dayis, in bred and vytaylle. xvij. s. j. d.	
Fore a barelle and a kylderkene ale, to the wyffe of the Garlond in Eschepe .....	iiij. s. ii. d.
My master spent at hys brekefaaste with my lord Audeley, at the sygne of the Grewnd .....	vj. s. x. d.
For ij. yerdes clothe fore a gounne fore Braham .....	iiij. s. x. d.
My master paid for a tonne wyne, that is to say, a pype and ij. hogges hedes. ....	c. s.
For a new sadelle .....	viiij. s. iiij. d.
For a doblet and a payr hosen for Lew .....	v. s. iiij. d.
For a potelle wyne .....	iiij. d.
For iiij. barres to the hoggeshedes of wyne. ....	iiij. d.
Paid at Westmenster for a bed by xi. wekes .....	iiij. s. viij. d.
Fore ij. elles Holand clothe .....	ij. s. viij. d.
Paid to Wadselle for hangyng of aras be ij. dayis, and for makenge of a payre sleeves to a kertelle. ....	ij. s.
For a plite of laune .....	x. d.
Fore an elle and di fyne Holand clothe. ....	ij. s. vj. d.
For iiij. elles of corse holand .....	ij. s. vj. d.
Paid to Nete and to John Mase for ij. day werke at Stoke Halle ponde. ....	xij. d.
My master gaffe to the persone of Framyngham for his potentes. ....	viiij. s. iiij. d.

To Nicholle Perye for wrytynge of the said potentes.....	iiij. s. ij. d.
For ij. boshelles of saltte.....	xx. d.
For ix. fote of glasse to the new closet.....	iiij. s. ix. d.
For xiiij. galons age.....	ij. s.
Fore xxxj. c. salfyshe, prise of c., xxv. s.....	summa, xxxvij. li, x. s.
Fore a quartere beffe.....	xxiiij. d.
A saddle, price.....	v. s.
A bonnet.....	xii. d.
Fore a sadylle.....	vj. s.

## A. D. 1466-7.

Fore makenge of xij. coshones of cremesene and grene velvet, prise.....	iiij. s.
Fore the stuffenge of the said coshones, fore vi. stone fethers, prise the stone ij. s.....	xij. s.
Fore a bonet fore master Gorge.....	xij. d.
xviij. yerdes of fyne plonket, prise the yerde.....	iiij. s. iiij. d.
X peeces of counterfet tapstre, every pece conteynenge xx. flemyshe elles, prise the pece.....	xj. s.
Item, the xviij. day of December my mastyr bowt of Bolstrode x. yerds of russet for ij. longe gownes for my lorde and a gowne for my lady, the yerde vj. s. viij. d.....	summa, iiij. li. vj. s. viij. d.
Item, my mastyr paid to Edwardes wyffe for j. cade of rede herynge, the wyche my mastyr sent to John Hoobbes.....	v. s.
Item, payd to Thomas Purcer, for Willyam Fykett, for ij. dayis werke.....	vj. d.
Item, my mastyr paid to ij. carpenters of the Holke, for werkenge on his werke, ij. dayis eche of them.....	xv. d.
Item, my mastyr paid to James Peterson for a galon oyle for the peyntenge of the payoysees.....	xij. d.
Item, * * * my mastyr paid for a li. † of whygthe led.....	iiij. d.
Item, my mastyr rekened wyth Willyam Welshe, and the said Willyam axsethe for tylenge of my masters place at London, be the space of xx. dayis, every day viij. d.....	summa, xij. s. iiij. d.
Item, fore his laborer servyng him, be the said xx. dayis, for every day v. d.....	summa, viij. s. iiij. d.
Item, * * * for iiij. lodes of sand.....	xviij. d.
Item, the same day my mastyr payd fore a hatt.....	iiij. s.
Item, the same day paid for v. mennes deners.....	viij. d.
Item, the same day paid fore ij. mennes sopers.....	iiij. d.
Item, paid for iiij. barelles of pyche and terre.....	xv. iiij. s.
Item, the yere a bove sayd, and the xxviij. day of Feverer, † my master bout iiij. spones of sylvere weyinge iiij. unnces, marked wyth a rose, and my master payd for every unnce iiij. s.....	summa, xij. s.
Item, the same day paid fore vj. mannes dyners.....	vij. d.
Item, the same day at nyzthe for iiij. mennes soppers.....	viij. d.
Paid for a bowe at Caley.....	iiij. s. iiij. d.
A sadylle, pryse.....	ij. s.
An entry records that "Danyelle," a servant, began service with Sir John on the next day after Holy Rode day, in the 7th year of Edw. IV. His yearly wages in money was to be.....	xl. s.
He was also to receive "ij. gownes and a howse for his wife to dwelle at Stoke." Item, my master toke hym (Danyelle) a peyre of botes that cost hym.....	iiij. s.
Item, an olde peyre of spores tht coste my master.....	vj. d.
Item, my master toke hym a standard bowe that Malsone gaff hym, and it is worthe in money.....	vj. s. viij. d.
An entry records that Robert Messendene receives by the year.....	xxvij. s. viij. d.
A pair of hose.....	ij. s. iiij. d.
A doublet and a pair of hose.....	vj. s.
For a shiyrte.....	xv. d.
For a shyrt.....	iiij. s. iiij. d.

## A. D. 1468.

For v. c. salt fyshe, the price.....	v. li.
For xiiij. barels of fyshe.....	iiij. li. xiiij. s. iiij. d.
For ix. barels of fishe, price.....	iiij. li.
Item, the secunde day of September, and the yere afore seid, my master made comen- saunts with John Matlow to brue hym lxxx. pipes of beyr by this day fourthnighte, paieng for the pipe and the beyr vj. s. iiij. d.....	tiij. xxj.

\* Large shields.

† A pound.

‡ February.

§NOTE.—The numerals "iiij. xx" printed in italics are in the handwriting of Sir John Howard, and relate, not to the aggregate cost of the beer, but to the number of pipes, which was eighty—or fourscore.

Paid to the godewife at the Sone in the Kinges strete at Westmynster for vj. pipes, price of the pipe, viij. d.	summa, liij. s.
For an hogeshed	iiij. d.
Item, the iiij. th day of September, my master paid to Waneshed for xxv. bullokkes of small and gret, the price of a pece, xii. s. x. d.	summa, xxiiij. marc. xv. s.
For a M. fyses, the prise of a c., xx. s.	summa, x. li.
For vj. barels fyshe, price of a barelle, vj. s. viij. d.	xl. s.
Item, the iiij. d day of September, bought of Lewes Galyot viij. <sup>xx</sup> and xvi. quarters whete, after the account of ix. bushels fore viij., payng fore every quartere, vij. s.	summa, lj. li. xxij. s.
Item, paid to Clase for c. and di. of pipe hopes	v. s.
Item, the ix. day of September, my master bought of Waneshed xliij. oxene, price	xxviij. li. x. s.
Item, paid for a barge hyre to bryng fyshe from Wheneheth to Redcliff	iiij. s. iiij. d.
Item, paid for lxiij. cheses, weyng ij. wey† and a halfe, price of a wey, ix. s.	summa, xxiiij. s. ix. d.
Item, paid for ij. wey salt, price the wey, xv. s.	summa, xxx. s.
Item, paid for vj. waneshottes, price of the pece, vii. d.	ij. s. vi. d.
Item, paid for viij. wey of leay salt, price the wey, xliij. s.	summa, liij. li. xviij. s.
For ix. <sup>xx</sup> quarters (180 quarters) whete, and to every quarter a bushelle, the price of every quartere, vij. s.	summa, lxiij. li.
Paid to Robert Diesene fore xxv. M. <sup>10</sup> and di. of wode, price of a M. <sup>10</sup> , iiij. s. viij. d.	v. li. xvj. s. viij. d.
Item, paid to John Wilkokkes, the xv. day of September, for xx. oxene	xvj. li.
Item, paid to hym fore xliij. oxene of a noder sorte, the same day, price of a pece, xliij. s. viij. d.	summa, viij. li. xviij. s. viij. d.
Item, paid to hym the same day fore xx. gret oxene	xviij. li.
For x. smal oxene	vj. li. vj. s. viij. d.
For xx. kyene	x. li. x. s.
For viij. oxene and steres	v. li. vij. s. viij. d.
For other ij. oxene	xxliij. s. viij. d.
For liij. oder oxene	lvj. s. viij. d.
For v. steres	iiij. li.
For vj. new sakkes	vj. s.
Item, my master paid to Warrewick, my lord of Warwyk haroude, for ccc. xij. quarters of whete, safe a bushelle, price of a quarter of whete	viij. s.
Item, paid to Richard Semer, flyshemongere, for viij. c. dryed saltfyshe, price of a c. xxliij. s.	summa, lx. li. xij. s.
Item, the xxj. day of September, my master paid to a buchere of London for xx. oxene, price of a pece, xv. s. vi. d.	summa, xv. li. x. s.
Item, paid to the same bucher for x. bullokkes, the same day, price of a pece, xij. s.	summa, vj. li.
For viij. wey of salt, the price of a wey, xliij. s. vj. d.	summa, v. li. xv. s.
Paid to master Coke for v. pipes	iiij. s. liij. d.
Item of Reynold, wynedrawer, vij. pipes, price	v. s.
Item, paid for bryngyng downe of xx. empty pipes frome Kinges hed in Chepe to the watir side	xviij. d.
Item, paid fore a barge that brought vij. wey of salt and lxiij. cheses, and a pipe of wyne to Redclif	xvj. d.
Paid to Robert Porfoot and to Rycharde Porfoote be Whitham for xv. quarters whete, price quartyr, ix. (bushels) for viii., viii. s.	summa, vj. li. vj. s.
Item, paid to a Docheman of London for lxiij. waneskottes, prie of	xx. s.
Item, paid to the same Docheman for ij. c. xij. fyshe, by the smalle tale, price	xvj. s. x. d.
Paid " " for vj. barels pyche and terre, price the barel, iiij. s. viij. d.	xxviij. s.
For liij. barels piche and terre, price the barel, v. s.	summa, xx. s.
Item, to liij. cartes of Cobham for caryng of ij. lodes and di. of tymber fro Dorkyng to Kyngestone	liij. s. ij. d.
Item, paid fore liij. <sup>xx</sup> (four score) chese waneskottes, price the pece, vi. d.	summa, xl. s.
For xxxviij. othere smallere waneskottes, price the pece, liij. d. ob.	summa, xliij. s. liij. d.
For liij. barelles of pyche and terre	xviij. s.
For liij. cabilles, a hawsere, and liij. other ropes, weyng xxiij. c. xxvi. lb., price the c., viij. s.	viij. li. xviij. s.
Paid to a gentel mane of the Kynges house that went with me to the beyr houses	x. d.
Item, paid to the torners for j. <sup>c</sup> drynkyng bolles, vj. <sup>c</sup> sawcers, price the c., xvj. d.	viij. s.

\* The numerals "viij. <sup>xx</sup>" mean "eight score," the aggregate quantity of wheat purchased being eight score (or 160) quarters, plus sixteen quarters, or 176 quarters.

† The wey comprised fourteen stone, or 196 lb.

Fore iij. c. platers, price the c., iiij. s.	xij. s.
For iij. gret tankerdas	ij. s. vj.
For xv. galone tankerdas	vij. s. vj. d.
For xv. potelle tankerdas	v. s.
For vj. baskettes, price the pece, iij. d.	xviij. d.
For xx. gret trayes	vj. s. viij. d.
Item, paid to a bark fore bryngyng downe of vj. pipes flour, ix. pipes beere, iiij. pipes fleshe, xiiij. c. fyshe to Gravesend	v. s.
For vj. ba. mustard sede	xx. s.
For ij. copir ketys weyng xlvij. li., price the li., vij. d.	xxviij. s.
Fore iij. brode clothes of russet, the firste clothe contenyng xxv. and di. yerdes, the ij. d. pece contenyng xxiiij. and di. yerdes, and the iij. d. pece contenyng xv. and di. yerdes, price of a yerde, ij. s.	summa, ix. li. xvj. s.
For iij. yerdes and j. quarter and di. of morrey engraned, for gownes for master Thomas & master Nicholace, price of a yerd, ix. s.	xxx. s. iij. d.
Item, the xxx. day of September, paid for a harnes complet fore hym (Master Nicholace Howard) and an estriche fether	vj. li. xvj. s. viij. d.

## A. D. 1468-9.

liij. barrels of fulle heryng of whyte heryng, the price of every barelle, xj. s.	xliiij. s.
<i>Bowete of Tomas Molanse v. brode clothes, ij. plonkates, ij. dereke rosetes, and they contenyng in yerdes xliij. xx., viii. yerdes, the yerde ij. s. iiij. d.; the same drawethe.</i>	xix. li. xij. s.
<i>A blake klotho kaled peweke brode klotho, conteynenge xxj. yerdes and halfe, the yered xxx. d.; the some is.</i>	liij. s. ix. d.
<i>For vij. xx. ij. quarteres and a halfe of wete, London measure, (London measure,) the pryce of the quarter is</i>	vj. s. iiij. d.
<i>Paid to Richard Ashe for xij. pipes of beyre, price the pipe, vij. s. viij. d. . summa, liij. li.</i>	
<i>For xj. peses lede, the weyte iiij. foder, cc., iij. quarteres, xxi. li., the foder v. li. vj. s. viij. d.; the some is.</i>	xxij. li. ij. s. xj. d.
<i>Paid to Thomas Burne fore a dagger</i>	vj. s. viij. d.
<i>Paid to William Martyn for a lode of hey</i>	vij. s. iiij. d.
<i>Fore a peyer pensones</i>	tiij. d.
<i>Fore a lode hey</i>	vij. s.
<i>Fore a lode strawe</i>	ij. s. tiij. d.
<i>Paid to Godfrey uppon the Northe for makenge of xij. jaketes of mayle, and makenge clene, and fore the goldamythes werke to the same</i>	xv. s.
<i>Fore a standard of mayle.</i>	ij. s.

## A. D. 1469.

For vj. brydille bittes, price the pece, xiiij. d.	vij. s. ij. d.
<i>Paid for xiiij. wey salt</i>	xliij. marc.
<i>For xij. elles of fyne holond clothe</i>	xix. s. ij. d.
<i>Fore makyng of a long gowne for my masters owne selfe</i>	xx. d.
<i>Fore a di. yerd of blak fresse fore the same gowne</i>	iiij. d.
<i>For makyng of a longe blak gowne furred with cony</i>	ij. s.
<i>Fore ij. yerdes and di. of blak lynngge fore the same</i>	iiij. s.
<i>Fore makynge of a shorte gowne of silke fore master Nicholace</i>	v. s.
<i>Fore a yerd and a halfe of blak lynngge for the same</i>	ij. s.
<i>Paid to Hans, cordwanere, fore ij. pare of shoes fore my master</i>	xvj. d.
<i>For ij. pare of shoes fore Edmonde</i>	vij. d.
<i>For Howeth child shoes</i>	v. d.
<i>Fore a pare of patens</i>	tiij. d.
<i>Fore a peyre of shoes fore Herry Hont</i>	vij. d.
<i>Fore a peyre of botes for Thome of the etabille</i>	vij. d.
<i>Fore damaske fore a new dobeleto fore selfe, (Sir John)</i>	xx. s.
<i>For ij. yerdes of porpel schamelete fore a jakete fore my selfe</i>	x. s.

## A. D. 1471.

<i>Stefen Howethe, be yere*</i>	vj. marke
<i>John Blyante, be yere*</i>	v. marke
<i>Welyome Fernweel, be yere*</i>	v. marke
<i>Herry Polynngton, be yere*</i>	v. marke
<i>John Schote, be yere*</i>	v. marke
<i>Yoven Bekersdal, be yere*</i>	v. marke
<i>Semond Man, be yere*</i>	tiij. makke
<i>Welyome Palgrave, be yere*</i>	xlviij. s. viij. d.

\* Either a list of servants, with their yearly wages, or else a portion of a roll of retainers.

## ORIGIN OF THE ENGLISH POOR LAWS.

It has already been remarked that the progress of the nation has dealt very unequally with the descendants of the mediæval serfs and villeins. Liberated from their legal thralldom, they enjoyed greatly enlarged opportunities for the exercise of their powers, and a large proportion of them rapidly improved their position, furnishing the bulk of the material out of which the great and influential middle class was gradually built up. It was the misfortune of the English villein that in securing his personal enfranchisement, he relinquished his hold upon the soil to which he and his ancestors had been attached. The consequence was, that in many instances his liberation was but a leap from bondage into pauperism; a result against which the English government of that day took no such humane and statesmanlike precaution as was taken by Alexander II, in abolishing serfdom in Russia in 1861. Hence as villenage gradually disappeared, there grew up not only the class of free agricultural laborers, and that of artificers and tradesmen in the towns, but a class of mendicants and thieves, whose number became so formidable as to occasion no little trouble and embarrassment to the authorities.

The first mention of this class in the statute-book occurs in the year 1349, when it was enacted that "because many valiant beggars, as long as they may live of begging, do refuse to labour, giving themselves to idleness and vice, and sometimes to theft or other abominations, none, upon pain of imprisonment, shall, under the colour of pity or alms, give anything to such which may labour, or presume to favor them in their sloth, so that thereby they may be compelled to labour for their necessary living."

"The nuisance, however," says Wade in his "History of the Middle and Working Classes," "was not abated;" and in 1376, we have evidence of a strong disposition to vagrancy among laborers, in the complaint of the House of Commons, that masters are obliged to give their servants high wages to prevent them running away; that many of the runaways turn beggars, and lead idle lives in cities and boroughs, although they have sufficient bodily strength to gain a livelihood, if willing to work; that others become *staff-strikers*, (cudgel-players,) wandering in parties from village to village, but that the chief part turn out sturdy rogues, infesting the kingdom with frequent robberies. To remedy these evils, the Commons propose that no relief shall be given to those who are able to work, within boroughs or in the country; that vagrants, beggars, and staff-strikers shall be imprisoned till they consent to return home to work, and whoever harbors a runaway servant shall be liable to a penalty of ten pounds. These enactments show the earliest opinion of Parliament on mendicity, and, from the language of the Commons, we learn that the objectionable classes under consideration were chiefly found in towns, where, owing to commerce and the introduction of manufactures, the principal wealth of the nation had accumulated.

Two years after, by 12 Richard II, c. 7, it is directed that impotent beggars shall continue to reside in the places where they were at the time of passing this act. In case those places are not able to maintain them, they are to remove to some other place in the hundred or to the place of their birth. From the tenor of this act, it is evident that the district where they finally settled was bound to maintain them, and the legislature of 1388 proceeded on the same principle of compulsory assessment embodied in the celebrated act of Elizabeth in 1601. It seems, too, from the enactments of this period that the indigent classes had a legal claim on the revenues of the clergy. In 1391 it is declared that, in all appropri-

ations of tithe for the support of monastic institutions a certain portion shall be set apart for the maintenance of the poor. In these regulations we see the foundation of the system of poor-laws; and, instead of referring their origin to the 43 Elizabeth, we ought only to ascribe to that act the concentration and development of an ancient practice that had prevailed long before her time. It is apparent, indeed, from the acts to which I have referred, and from other statutes which might be quoted, that, for nearly two centuries prior to the Reformation, the legislature was sedulously struggling against the evil which accompanied the transition from slavery to free labor, and that their policy was directed to objects similar to those which have lately engaged attention, namely, to analyze the mass of vagabondage, imposture, and real destitution which afflict society—to punish the former and relieve the latter. Branding, whipping, imprisonment, and setting in the stocks were the punishments chiefly employed for the suppression of vagrancy. Scholars were liable to these penalties unless provided with written testimonials from the chancellor of their respective universities. Sailors, soldiers, and travelers were also to be provided with passports, and were required to travel homewards by the shortest road. Artificers and laborers (11 Henry VII, c. 2) were forbidden to play at unlawful games, except during Christmas; and two justices were empowered to restrain the common selling of ale in towns and places where they should think expedient, and to take surety of ale-house keepers for their good behavior, as they might be advised, at the time of the sessions.”

By an act passed in 1530 beggars were divided into two classes, namely, the aged and impotent, and vagabonds and idle persons; and justices were empowered to license persons of the first description to beg within certain precincts. Their names were directed to be registered and to be certified at the next sessions. Begging without a license, or without the limits assigned, subjected the offender to imprisonment in the stocks for two days and nights, and to feeding on bread and water. Able-bodied vagabonds found begging were flogged at the cart's tail, and then sworn to return to their places of birth, or where they last dwelt for the space of three years, and there put themselves to labor.

It is probable that inconveniences arose from begging being authorized by the legislature, for within five years several material alterations were made in the laws respecting the impotent poor. In the 27 Henry VIII, c. 25, we have a near approximation to the principle of a poor-rate. The preamble states that it had not been provided “how poor-people and sturdy vagabonds should be ordered at their repaire and coming into their countries, nor how the inhabitants of every hundred should be *charged for their reliefe*, nor yet for the setting and keeping in worke and labour the said valiant beggars at their repaire into every hundred of this realme.” From these expressions the legislature seems to have been convinced of the necessity of a compulsory maintenance, and although a regular tax for that purpose was not immediately imposed, yet it seems to have been conceded, from the regulations of the statute, that the poor, even at this period, should be maintained by the public. The act makes it obligatory, under a penalty of twenty shillings a month, on the head officer of every parish, to maintain, by the collection of voluntary and charitable alms, the poor of their parish in such a way that none of them “of very necessity” might be compelled “to go openly on begging.” The alms to be collected on Sundays, holidays, and festivals. All ministers, in their sermons, collations, biddings of the beads, confessions, and at the making of wills, are required to “exhort, move, stir, and provoke people to be liberal in contributions to-

wards the comfort and relief of the poor, impotent, decrepit, indigent, and needy people, and for setting and keeping to work the able poor." Certain of the poor are directed twice or thrice every week to go round and collect from each householder his broken meat and refuse drink for equal distribution among the indigent, but precautions are taken by fines and penalties to guard against the embezzlement of the parochial alms and doles by constables and church-wardens.

At the period under consideration the police regulations of the country, rigid as they were, appear to have been utterly inadequate to the preservation of order. Never were severe laws enacted in greater profusion or more rigorously executed, and never did the unrelenting vengeance of authority prove more ineffectual. Harrison informs us that seventy-two thousand great and petty thieves were put to death during the reign of Henry VIII; and that even in the time of Elizabeth there was not "one year commonly wherein three hundred or four hundred" rogues "were not devoured and eaten up by the gallows in one place and another." Looking at the subject from the more enlightened stand-point of modern jurisprudence, we can hardly be surprised to learn that, "in spite of these sanguinary punishments, the country continued in a dreadful state of turbulence." "Every part of the kingdom," we are told, "was infested with robbers and idle vagabonds, who, refusing to labor, lived by plundering the peaceable inhabitants, and often strolling about the country in bodies of three hundred or four hundred, attacked with impunity the sheep-folds and dwellings of the people."

It will be shown further on that a cause which goes far toward explaining this deplorable state of affairs is to be found in the revolution in land-tenures which occurred under the Tudor dynasty. To the same cause may be attributed the greater part of that increasing pauperism which continually called for new enactments. "The long reign of Elizabeth," says Wade, "is filled with statutes for supplying the deficiencies or correcting the errors of former poor-laws. In the year 1597 several acts were passed relative to vagrancy and mendicity, and the provisions of former acts in some degree moulded into a uniform system. In one act four overseers are directed to be chosen in each parish for setting poor children and others in want of employment to work, and for raising, weekly or otherwise, a stock of materials for that purpose. Justices are empowered to levy the rate by distress, and for the relief of the impotent poor the church-wardens and overseers are authorized, with the permission of the lords of manors, to build convenient houses on the waste at the general charge of the parish, and to place inmates of more families than one in each cottage. Parents of old, blind, lame, and other poor persons are bound to assist their children as shall be directed at the general quarter-sessions, on penalty of twenty shillings for every month they fail to do so. And begging, unless for victuals, in the parish, is entirely prohibited. Several acts were also passed for the relief of soldiers and mariners, and every parish charged a certain sum weekly for their maintenance.

"Increasing inconveniences at length produced the celebrated statute of 43 Elizabeth, which concentrated in one act the accumulated experience of previous years, and long formed the groundwork of our poor-laws. By comparing this statute with the provisions of that referred to in the last paragraph, it appears that its most material provisions were not, as many erroneously suppose, originally framed in 1601; on the contrary, the principal clauses of the act of 39 Elizabeth, respecting the appointment of overseers, levying the rate, setting the able to work, providing relief for the impotent, and binding out children as apprentices, were



copied almost verbatim. From the tenor of the last clause in this great legislative measure it was evidently intended only to be experimental. It was, however, continued by subsequent statutes, and by the 16 Car. I, c. 4, made perpetual.

"Although Scotland is, for the most part, exempted from the poor-rate, it is remarkable that a compulsory provision for the poor was established by law in that kingdom twenty-two years before the passing of the act of 43 Elizabeth. In James VI's Parliament, held at Edinburgh, in 1579, an act was passed in which every branch of the English system—the punishment of vagabonds, of runaway servants, the mode of passing soldiers and seamen to their parishes, the regulation of hospitals for aged and impotent persons, the settlement of the poor, their maintenance by the parish, the appointment of overseers and collectors, the manner of treating those who refuse to work, and the putting out of poor children as apprentices—is more fully detailed than in any English statute. The assessment for the poor is very general: 'the hail inhabitants within the parochin' are to be 'taxed and stented according to the estimation of their substance, without exception of persones, to sik ouklie, (weekly,) charge and contribution as sall be thocht expedient and sufficient to susteine the saidis pure peopil.'

"It is impossible, at this distance of time to form any accurate idea of the comparative number of the receivers and payers of parochial contributions immediately after the establishment of the poor-rate. Sir F. M. Eden was of opinion that, at the period he wrote, (1797,) the pauper class constituted a larger proportion of the community than at the close of the sixteenth and the beginning of the seventeenth centuries. But the fact is, though the act of 1601 empowered parishes to levy a poor rate, it was not for many years after carried into execution in various parts of the kingdom. The author of a pamphlet published in 1698, entitled 'Bread for the Poor,' says that, though parishes were enabled (by the act of 43 Elizabeth) to make rates, and the owners of estates obliged to the payment, yet in many places no such rates were made in twenty or thirty years after.

"It is probable that the dearth of corn and other articles of subsistence, which took place toward the close of Elizabeth's reign, greatly accelerated the passing of the act for raising a compulsory poor-rate. In 1587 wheat rose to £3 4s. the quarter; in 1594 it was £2 16s., and in 1595, £2 13s. 4d. the quarter. For several years there had been a succession of bad weather and scanty crops.

"In the year 1601, however, the season was more favorable; which, by rendering the condition of the poor more comfortable, concurred to recommend, even beyond its deserts, the new measure of the legislature.

"Among the various funds appropriated to the relief of the poor, previous to the act of 1601, may be mentioned pecuniary forfeitures, which, for many statutable offenses, especially those relative to profaneness and immorality, were applied in aid of the poor. As early as 1558 churchwardens were empowered to levy twelpence upon every parishioner who omitted going to church on Sunday. In 1570 a moiety of the forfeitures for detaining goods belonging to a bankrupt's estate was directed to be distributed among the poor of the town in which the bankrupt was resident; and in the same Parliament half the penalty for not wearing a woollen cap on a Sunday was appropriated to the same purpose. One-third of the fines for saying mass, and other offenses against the established worship, were given to the poor; also penalties for swearing, tippling, and disorderly conduct on the Lord's day. It is not improbable that these various mulcts for offenses against

religion and morality were intended as part compensation to the poor for the loss they had sustained by the dissolution of the monasteries and the new disposition of ecclesiastical property."

#### THE INCLOSURES OF THE SIXTEENTH CENTURY.

The revolution in land-tenures, above referred to as having occurred during the Tudor reigns, was one of the most momentous events in the economical history of England. A detailed inquiry into the facts connected with it would far transcend the limits assignable to such a subject in a work like this; but to pass it by without notice would be to leave out of view the principal cause of that increase of pauperism, vagrancy, and crime which characterized the period under consideration, as well as the chief explanation of the present status of the agricultural laborers of England. It has already been intimated that the substitution of money-rents for personal services in payment for the occupation of land was instrumental "in promoting that complete divorce of the English agricultural laborer from the soil, which in modern times has been a source of such serious evils." It was, indeed, a part of the process of emancipation from feudal dependence and servitude—a dependence which had been degrading, and a servitude which at one time had certainly been extremely galling and severe; but in England this emancipation was attended with unfortunate conditions—a fact which will be better understood if we first glance briefly at the legislation which attended the emancipation of the Prussian peasantry at a much later day.

In Prussia the feudal system existed, at least in form, until after the beginning of the present century. Mr. R. B. D. Morier, in an essay on "The Agrarian legislation of Prussia during the present century," gives the following account of villenage and villein tenure as they existed in Prussia prior to the edict of October 9, 1807:

"The status of villenage differed according as the villein was "Leibeigen," (i. e., as his lord had rights of property in his body,) or only "erbanterthänig," i. e., in a state of hereditary subjection to the manor, "adscripti glebæ."

In its worst form the villein could be held to unlimited service, and could be deprived of his holding and located in another. At his death the whole or the largest portion of his personal estate fell to the lord. His children could not marry without the lord's consent, and could be kept an unlimited number of years as personal servants ("Gesinde") in the service of the manor. He could receive corporal punishment to heighten his productive power and to enforce respect, but his life was protected.

This extreme form was, however, the exception to the rule. It occurred mostly in the more remote provinces.

The milder form differed from the former in the services to be performed and the dues to be paid, being limited by local custom, and in a greater freedom in the disposal of the holding. The villein knew what work he and his team would have to perform in the course of the year, the number of years his children would have to serve in the household of the lord, the tax he would have to pay on their marriage, the amount of the mortuary dues which at his death the lord would have a right to. He could also buy his freedom at a fixed price, and, with the permission of his lord, dispose of his holding.

The free peasant differed from the villein in having no personal dues to pay, and in his service and dues being usually recorded in writing in the grants made to him, and, therefore, bearing more directly the character of a legal contract. He could not, however, acquire by purchase or inheritance other than peasant land,\* nor could he change his position by changing his country life for a city life; nor could he in the country exercise any trade or calling but that of agriculture.

The land cultivated by the peasant, therefore, was divided into two principal categories:

1. That in which he had rights of property.
2. That in which he had only rights of usufruct.

In both cases services were rendered and dues were paid in kind or money to the manor. But in the first case these services and dues may be considered as having had a public, in the latter case a private, origin.

\*The soil was divided into noble land and peasant land. The former could not be acquired by a peasant nor the latter by a noble.

As regards the land in which the peasant had only rights of usufruct, it was divided into two principal categories:

1. Land in which the peasant had hereditary rights of usufruct, and could transmit his holding to his descendants and his collaterals, according to the common law of inheritance.

2. Land in which the occupier was only a tenant for life, or for a term of years, or at will.

In neither case, however, could the landlord re-enter on this land. The lords of the manor had been deprived of this right, if it ever existed, by various edicts of the former Hohenzollern kings.

Among other provisions of the edict above mentioned was one prohibiting the creation of any new relations of villenage, "either by birth, marriage, or the acquisition of a villein," after the publication of the edict. Another declared that from the same date all peasants holding by hereditary tenures, they and their wives and their children should cease to be villeins. Another abolishes every remaining form of villenage at Martinmas in the year 1810, after which date it was declared there should be none but freemen in all the king's dominions. It was to be understood, however, that these freemen should remain subject to all obligations flowing from the possession of land or from particular contracts to which as freemen they could be subjected.

Up to this time the mass of the Prussian peasantry had been bound to the soil. The edict of 1807 gave them personal freedom, but did not deprive them of any rights which custom and feudal law had given them in the land they held, nor did it release them from any obligations which had been attached to the occupation of such land. Moreover, the conditions of their tenure were such as to make their holdings in most cases a valuable possession. Without releasing them *from* the land, the law had gradually improved their position *on* the land, as may be seen in the edict of Frederick the Great prohibiting the re-entry of the lord on peasant land. He could exact the service and dues belonging to him in virtue of his "over-lordship," but he could not evict the peasant and take personal possession of the land. Virtually, therefore, the land was subject to a species of joint ownership, for the claim which the peasant had upon it constituted a sort of property, as also did that of the lord. It was a property, however, which was subject to the great inconvenience that it could not easily be transferred, for so complicated were the relations of lord and peasant that it was difficult to determine the cash value of their respective rights, or the deductions to be made from that value on account of their respective liabilities. As a remedy for this complicated condition of land-tenure the edict of September 14, 1811, "for the regulation of the relations between the lords of the manor and their peasants," established, among other things, the following rule:

That in the case of hereditary holdings the lords of the manor shall be indemnified for their rights of ownership in the holding, and for the ordinary services and dues attached to the holding, when the tenants shall have surrendered *one-third portion of all the lands held by them*, and shall have renounced their claims to all extraordinary assistance, as well as to the dead stock, to repairs, and to payment on their behalf of the dues to the state when incapable of doing so.

The lords and the peasants were left free to make what arrangements they pleased as long as the proportion of one-third was maintained; that is, by mutual agreement the indemnity might take the form of a payment of capital, or of a corn or money rent, instead of a surrender to the lord of one-third of the peasant's holding. But the rule to be followed (and a departure from this rule required a distinct motive) was, that the indemnity should be paid in land where the holdings exceeded fifty *morgen*, (about 33 acres,) and in a corn-rent, where the holdings were under that size.

In respect to the class of holdings held by tenants-at-will, or for a

term of years, or for life, the edict provided that the lord should receive one-half of the land so held as his indemnity for the loss of the dues, services, and rights which he surrendered to the tenant.

In other respects the conditions of the adjustment were much the same as in the case of the hereditary holdings, but with occasional differences, which were in favor of the lord of the manor.

The new conditions of land-tenure inaugurated by this edict necessitated corresponding changes in other portions of the agricultural system, and to bring these changes about, the "edict for the better cultivation of the land" was issued on the same day as the one last considered.

To present even a brief statement of its provisions would require more space than can be spared in this connection; but there is one passage which so well illustrates the policy of the Prussian government in regard to the distribution of land among the people that it may properly be quoted in full. After providing that "the proprietor shall henceforth (excepting always where the rights of third parties are concerned) be at liberty to increase or diminish his estate by buying or selling as may seem good to him," to leave the appurtenances thereof to one heir or to many, as he pleases, to "exchange them or give them away, or dispose of them in any and every legal way without requiring any authorization for such changes," the edict enumerates various advantages which will result from "this unlimited right of disposal," and among others the following:

But there is yet another advantage springing from this power of piecemeal alienation which is well worthy of attention, and which fills our paternal heart with especial gladness. It gives, namely, an opportunity to the so-called small folks, (*Kleine Leute*,) cottiers, gardeners, boothmen, and day-laborers, to acquire landed property, and little by little to increase it. The prospect of such acquisition will render this numerous and useful class of our subjects industrious, orderly, and saving, inasmuch as thus only will they be enabled to obtain the means necessary to the purchase of land. Many of them will be able to work their way upward and to acquire property and to make themselves remarkable for their industry. The state will acquire a new and valuable class of industrious proprietors. By the endeavor to become such, agriculture will obtain new hands, and by increased voluntary exertion more work out of the old ones.

In respect to hereditary leaseholds, this edict enacted that the services and fines attached to such holdings might be commuted into rent-charges, which in their turn could be redeemed by a capital payment calculated at the rate of four per cent. That is, by a payment of twenty-five times the annual rent charge, it might be forever extinguished and the leaseholder be thus made a freeholder.

Such were a few of the leading features of the great measures familiarly known as the Stein and Hardenberg legislation. Several laws of minor importance were subsequently adopted, but the only ones which need be noticed here are those of March 2, 1850, viz, the "law for the redemption of services and dues, and the regulation of the relations between the lords of the manor and their peasants," and the "law for the establishment of rent-banks." These were designed to complete whatever had been left unfinished by previous legislation in the great work of establishing free and separate ownership in the soil. The former abrogated the "*dominium directum*," or right of over-lordship so far as it was still held by lords of manors, commuted all remaining services and dues into fixed money-rents calculated on the average money value of the services and dues rendered and paid during a certain number of years preceding, and finally provided that these rents should be compulsorily redeemable, either by the immediate payment of eighteen times the annual rent charge, or by an annual payment of  $4\frac{1}{2}$  or 5 per cent.

for a specified time\* on a capital of twenty times the annual rent-charge.

The other law provided the machinery by which this wholesale redemption was to be effected, the state, through the instrumentality of the rent-banks, constituting itself the broker between the tenant and the landlord. The bank established in each district advanced to the landlord, in rent-debentures bearing interest at the rate of four per cent. per annum, a capital sum equal to twenty times the annual rent-charge, and the peasant, along with his ordinary rates and taxes, paid into the hands of the district tax-collector, each month, one-twelfth part of a rent calculated at 5 or  $4\frac{1}{2}$  per cent. on this capital sum, according as he elected to free his property from incumbrance in  $41\frac{1}{2}$  or  $56\frac{1}{2}$  years, the respective terms within which, at compound interest, the 1 or the  $\frac{1}{2}$  per cent., paid in addition to the 4 per cent. interest on the debenture, would extinguish the capital.

From the foregoing brief outline of the agrarian legislation of Prussia during the present century, it will be seen how earnest and persistent have been the efforts of that monarchy† to protect all the customary rights in the soil which the peasantry enjoyed under the feudal system as it existed at the beginning of the present century, to give them a full equivalent for such rights under the new system of land-tenure, and in so doing to constitute the masses of the tillers of the soil a sturdy yeomanry cultivating their own fields, and not a race of dependent hirelings living and laboring upon the land of others.

It is here that we see a marked contrast between the agrarian revolu-

\* If the annual payment was  $4\frac{1}{2}$  per cent. it was to be continued  $56\frac{1}{2}$  years; if 5 per cent. it was to be continued  $41\frac{1}{2}$  years.

† The Russian government, in abolishing serfdom, also adopted measures having for their object to secure to the serfs a permanent interest in the soil. Previous to their emancipation the serfs of each estate had occupied land which they cultivated for their own subsistence, the proprietor allowing them three days in the week for their own work and claiming three days for himself. The amount of land assigned to them on their emancipation varied according to circumstances and locality, considerable scope being left for voluntary agreements between the proprietors and the peasants, under conditions calculated to leave the latter as nearly as possible in possession of the same land which they occupied as serfs. The occupation of this land, whatever its amount might be, was obligatory upon the peasants for nine years, as also was the payment of a certain money-rent, or, at the option of the peasant, the performance of a certain amount of labor, the amount for the maximum holding being forty days of man's work and thirty days of woman's, making seventy days in all, of which three-fifths were to be summer and two-fifths winter days. It should be said here that the Russian serfs as a rule lived in villages and cultivated their land in common—a mode of life which prevailed among their ancestors before they were reduced to serfdom, (in 1601,) and to which a considerable proportion of them, perhaps a large majority, will probably adhere for many years to come. The land was assigned to them at the rate of so much per male head of the village community or "mir," and it appears to have been the object of the government to leave the peasants as free as possible either to continue their system of common property in land, or to dissolve the "mir," and establish individual ownership with separate cultivation. The average maximum share was about twelve acres, for which the average money-rent was about \$6.80 per annum, or at the rate of 56 cents per acre. As the average rent (\$6.80) is treated as the equivalent of seventy days' labor, the average value of the latter must have been set down at a fraction less than 10 cents per diem. This, however, is less than the average market value of agricultural labor, and therefore the arrangement is calculated to stimulate the peasants to pay for their land in money rather than in labor. As a rule the rental value of land under tillage is considerably higher than the price fixed, so that while paying rent the peasants are not in the position of tenants who pay full competition rents. Moreover, the law gives them the right to purchase their land upon payment of  $16\frac{1}{2}$  times the annual rent; or, if the community is dissolved, each peasant may insist upon his individual right of purchase. In this case, however, the price is increased by twenty per cent. The government has also adopted a system somewhat analogous to that embodied in the Prussian rent-banks for assisting the peasants in the purchase of their land, and thus smoothing their way to complete independence.

tion accomplished in Prussia within the present century and that which took place in England upwards of three hundred years ago. In England and Prussia alike the change in the system of land-tenure was accompanied by a change in the mode of cultivation. Indeed, it is probable that the former change was due in a great measure to the necessity which existed for the latter; that is, to the change from cultivation in common by each peasant community to the system of separate holdings cultivated by individuals, or, to use two old English terms, from "champion country" to "severall." "To the student of English history," says Morier, "the word which corresponds to this change is 'inclosure,' the true significance of which has, however, not always been seized by either English or foreign writers on the subject. The great 'inclosing' movement in the sixteenth century is usually described as if it had merely had for its object to turn arable land into pasturage. Its importance as a joint effort on the part of the lords of the manor to withdraw their demesne lands from the 'communion' of the township has been overlooked. That this object was in itself highly desirable, and the 'conditio sine qua non' of any improvements in agriculture is undeniable; it was an organic change through which every Teutonic community had necessarily to pass. The evils which attended the process in England at the time referred to, arose from the fact that instead of being effected by impartial legislation, as has been the case in Prussia during the present century, the change was forcibly brought about by the one-sided action of the landlords. Any one acquainted with the practical difficulties experienced in Germany in making analogous separations, will readily comprehend all the injustice which one-sided action in such a process on the part of the stronger must have implied. In the most favorable case the withdrawal of, say, one-third or one-half of the land from the 'commonable' arable land of a township, such half or third portion, be it remembered, consisting, in many cases, of small parcels intermixed with those of the commoners, must have rendered the further common cultivation impossible, and thereby compelled the freeholders and copyholders to part with their land and their common rights on any terms. That in less favorable cases the lords of the manor did not look very closely into the rights of their tenants, but interpreted the customs of their respective manors in the sense that suited them best, and that instead of an equitable repartition of land between the two classes, the result was a general consolidation of tenants' land with demesne land, and the creation of large inclosed farms, with the consequent wholesale destruction of agricultural communities or townships is well known to every reader of history. \* \* \* \*

"Three great countries—England, France, and Germany—began their political life from a similar agricultural basis. In each of them the great conflict between *immunity* and *community*, between *demesne land* and *tenant land*, between the *manor* and the *peasant*, has had to be fought out. In England the manor won; the peasant lost. In France the peasant won; the manor lost. In Germany the game has been drawn, and the stakes have been divided."

Yes, in England the manor won, and the victory, complete as it was, appears to have been achieved without any serious difficulty. The maritime advantages of England, her comparative exemption from the danger of invasion, and the superiority of her internal police tended to make her, even at an early period, a commercial nation. The opportunities for remunerative employment presented by trade and manufactures attracted the peasants to the towns; and their readiness to sever

their connection with the soil, a connection which in their minds was associated with subjection and servitude, must have been unfavorable to the growth of those prescriptive rights which in time would have made them, like the Prussian peasants at the beginning of the present century, coproprietors with the lords in the land which they occupied. The actual course of events was calculated to encourage the pretensions of the nobility to the absolute control of the soil. One of their earliest encroachments upon the customary rights of the peasantry was the legalization of the claim of the lords of the manor to inclose for their own use a portion of the common pasture-land. In a law passed in 1235 or 1236, it was set forth that many large landed proprietors, who had made over in fief small holdings on their manors to knights and other small freeholders, could not make use of their waste lands and forests, inasmuch as they had let to their vassals the appurtenant pasturage-rights, together with the land-plots. On this account it was enacted that if the tenants should complain of the withdrawal of this right of pasturage, and if upon judicial inquiry it should appear that they had as much pasture as was necessary to their holdings, together with free ingress and egress, the complaint should be dismissed. Another law passed in 1285 went a step further, and to the right of inclosure which the lord possessed as against his own vassals, added the same right as against other commoners who were not tenants of the manor. These laws, however, had reference only to complaints made by the free tenants; and as the villeins are not mentioned, it is probable that with regard to them the lord of the manor was entirely unrestricted in his encroachments on the common pasture. The right established by these laws was frequently exercised, and is believed to have been of great value, although the land inclosed was sometimes used as a private manorial pasture or park, and not for the purpose of tillage. The origin of many of the vast pleasure-parks now attached to the mansions of the nobility may doubtless be traced to the inclosures of those early times.

Mr. Nasse, however, expresses the opinion\* that up to some time in the fifteenth century the agrarian movement of the Middle Ages was, on the whole, advantageous to the position of small landed proprietors, but he says that its further development was "as ruinous to their interests as it had before been favorable." After the general substitution of money-rents for personal services, the lord of the manor had no longer an interest in the preservation of the small tenant, since it was more convenient for him to draw the same amount of rent from a smaller number. It was advantageous to him to diminish the number of claimants to rights in the manorial pasture, and was much easier to convert large peasant-holdings into lease-hold tenures than smaller ones.

We first perceive, says Nasse, in the reign of Henry VII the complaints, subsequently so numerous, of the decreasing numbers of the small landed proprietors, of the inclosures, and of encroachments on the pasture. Two laws of the fourth year of that king's reign (1488) gave public expression to the apprehension excited by the agrarian revolution, which was then in progress. The first, cap. 16, particularly noticed by historians, relates especially to the grass husbandry and the depopulation of the Isle of Wight; the other, cap. 19, "An acte against pulling down of townes,"† is of a general character, and applies to the whole country. "Many houses and villages in the kingdom are deserted, the arable land belonging to them is inclosed and converted into pasturage, and idleness (the cause of all evil) is therefore generally prevalent. Where, formerly, two hundred men supported themselves by honest labor, are now to be seen only two or three shepherds." In the first law, which referred to the Isle of Wight, on

\*"The agricultural community of the Middle Ages and inclosures of the sixteenth century in England."

† "Toune" is manifestly here used in its old sense, not of city, but dwelling-place, or village.

account of the especial necessity which still existed for a strong population as a defense against the French and other enemies, it was ordered that no one should have a leasehold of more than ten marks of yearly rent, and that no one should pull down farm-buildings or suffer them to fall into decay. The second lays down, generally, that all dwelling and farm buildings which within the last three years have been leased with twenty acres of land, shall be preserved in as far as they are necessary for carrying on an arable husbandry. If this law should be violated, the next superior feudal lord, from whom the land in question was held on lease, was to take half the revenue of the land, the farm-buildings of which had not been maintained.

These complaints may be traced throughout the sixteenth century into the beginning of the seventeenth, in the same manner, without interruption.

We find them also in the following reign again most plainly expressed in the statute-book, in the introduction to the laws by which the practice of encroachments was sought to be restrained. Thus, in 6 Henry VIII, c. 5, and 7 Henry VIII, c. 1, where the mischief done is as plainly described as in the just-cited law of Henry VII: "Pulling downe and destruction of townes wythin thys realme and laying to pasture-lands which customably have been manured and occupied wyth tyllage and husbandry." When such houses, it goes on to say, have been destroyed since the first day of the present Parliament they are immediately to be rebuilt and the closed lands restored to tillage. The penalty for violation of the law is the same as that of 4 Henry VIII, c. 19, but with the aggravation that if the next feudal lord should neglect to interpose, then the next superior, and finally, above all, the king is empowered to enforce the penalty. These last rulings were later (24 Henry VIII, c. 24) repeated, with the modification that they applied to all agricultural buildings which had fallen into decay since 4 Henry VII, as well as to arable land which had been converted into pasture since the same period, and that generally for thirty to fifty acres of arable land a dwelling-house should be established in which a respectable man could live.

Shortly after this followed the law 25 Henry VIII, c. 12, 13, (1533-4,) which is especially directed against the encroachments with regard to sheep-farming. "Different individuals in the last years had accumulated in their own hands a number of landed properties, a multitude of cattle, and especially of sheep. Some of them possessed 24,000 sheep, others 10,000, &c. Tillage is thereby displaced, the country depopulated, and the price of sheep and wool raised in an unheard-of manner." No one, therefore, shall possess more than two thousand sheep, with the exception of laymen, who, upon their own inheritance, may possess as many as they please; but they must not carry on sheep-farming on other properties." Especially it was dwelt upon that in Suffolk and Norfolk the owners of fold-courses within the properties and manors over which their rights extended, redeemed or rented from all the other possessors of land who had the right to pasture their sheep with the manorial flock their pasture-right, and against this custom a prohibition was issued.

There is good reason to believe that the evils so generally complained of were materially aggravated by the confiscation of the abbey lands in the later years of the reign of Henry VIII.<sup>†</sup> This measure might have yielded great advantages to the nation had the immense domains of the church, comprising from one-fourth to one-half of the kingdom, been wisely disposed of for the best interests of the people; but, under the selfish and unstatesmanlike policy of Henry, they were transferred from the ecclesiastical corporations to landlords, who, as a rule, were far more exacting than the abbots had been,<sup>‡</sup> without giving more attention to the cultivation of their estates.

The religious houses, situated in the midst of their domains, had themselves afforded to the tenants a market for a considerable portion of their produce; the new landlords not only exacted higher rents, but spent the greater portion of their incomes in the capital, thus inflicting upon the country the well-known evils of absenteeism, of which Ireland has more recently afforded so striking an illustration. Moreover, the transfer of title from the ecclesiastical bodies to the king, and through him to new proprietors, appears to have been effected without proper reservations for the rights of the occupiers of the soil, many of whom were not mere tenants at will, but persons having a sort of qualified

\* The rise in the price of sheep and wool was doubtless one of the causes of the state of things complained of instead of being one of its effects.

† The measure was authorized by Parliament in the year 1539.

‡ It is admitted that the abbots were most indulgent landlords.



ownership. Thus it was set forth in a publication, which appeared in 1546, that the new possessors of church property claimed that its secularization had extinguished all the old rights of copyholders on church lands, who were obliged either to give up their holdings, or retain them on temporary leases. In the end the liberation of the land from the shackles of mortmain was doubtless conducive to a higher cultivation, but it must be remembered that these were not the only shackles by which English estates had been bound, nor were they at all times the shackles whose effect was most injuriously felt. The Hon. C. Wren Hoskyns, M. P., in a carefully-prepared paper on "the land-laws of England," published in 1870, refers in the following language to the effect of the two famous statutes (*Quia Emptores* and *De Donis Conditionalibus*), passed in the reign of Edward I:

These two statutes for nearly two centuries crushed the growing effort to emancipate land from its feudal fetters, at least, by open alienation, and had the further mischievous effect of making the position of the unfortunate tenant in agriculture more insecure than ever, as no leasing power of one tenant-in-tail was binding on his successor. Thence all good farming betook itself to the monastic houses, whose mortmain lands became the fixed asylum of agricultural knowledge and improvement. Certainty of tenure out of doors, and the classical writers on husbandry studied and transcribed within, told powerfully upon the soil, and were draining and redeeming into cultivation the fens and marshes of Lincoln and Somerset and Sussex, while elsewhere the pressure of feudal exaction upon the fee-simple proprietor, and the insecurity of the farming tenant, even under lease, reduced cultivation to its most precarious and servile condition, and dwarfed the agricultural growth of the kingdom. The remedy for the effects of these statutes was gradually found in a practice which drew from the machinery of the law the instrument of its own evasion by means of what was called a common recovery.

Sir F. M. Eden remarks that "the statutes which enabled the nobility to alienate their estates, the seizure and sale of the abbey lands by Henry VIII, and the general effects of increasing industry, must have powerfully operated toward a more equal division of property than could possibly have taken place in times when the nation was poorer and the shackles of mortmain and entails more rigidly observed." He admits, however, that, "while these powerful causes were gradually transferring a great portion of the estates of the church and the nobility into the hands of country gentlemen, \* \* \* the race of cottagers was going fast to decay." He adds: "This must ever be the case in an improved state of agriculture," since "the half-starved proprietor of ten or twenty acres will often be persuaded to part with his land to a rich neighbor who farms on an extensive scale." The predilection of an English baronet for the system of large farms was very natural; but without stopping to discuss the advantages of *la petite culture*, as exemplified in different parts of Europe, and especially in portions of France, and in Belgium, it may be said here that the decay of "the race of cottagers," or peasant farmers, was undoubtedly one of the causes of that enormous increase of vagabondage and mendicancy which, at the period under consideration, was the theme of such constant complaint.

About the middle of the sixteenth century, the popular discontent at the agrarian revolution, which was making such rapid progress, became intense. The pamphlets of the time, says Nasse, are filled with it, and the most celebrated preachers zealously inveighed against it as the ruling sin of the times. Bishop Latimer, in his famous "Sermon of the Plough," preached before the court of Edward VI on the 8th of March, 1549, complains that, where formerly there were dwellings and inhabitants, now there are only the shepherd and his dog. He reproaches the nobles, who were among his audience, as "inclosers, graziers, and rent-

raisers," who made dowerless slaves of the English yeomanry. Still more vehemently did Bernard Gilpin raise his voice against the conduct of the gentlemen: "To drive poor people out of their dwellings they consider no crime, but say the land belongs to them, and then cast them out of their homes like vermin. Thousands in England now beg from door to door who formerly kept honest houses. Never," said he, "were there so many gentlemen and so little gentleness." Scory, bishop of Rochester, in the year 1551, presented a petition to the King, in which he complains that now there are only "ten ploughs, where formerly there were from forty to fifty." Two acres out of three have been put out of culture, and where his majesty's predecessors had a hundred men fit for service, now there are scarcely half that number, and those in a much worse position. The country population in England would soon be "more like the slavery and peasantry of France than the ancient and godly yeomanry of England."

The following passage from one of Latimer's sermons incidentally illustrates the condition of substantial English yeomen at the beginning of the sixteenth century, and at the same time serves to show how great a change the lapse of half a century had made in the circumstances of that class:

My father, he says, was a yeoman, and had no landes of his owne, onely he had a ferme of 3 or 4 pounds by year at the uttermost, and hereupon he tilled so much as kept half a dozen men. He had walke for an hundredth sheepe, and my mother milked xxv kine. \* \* \* He kept me to schole, or els I had not bene able to have preached before the Kinge's majestie now. He maryed my sisters with five pound, or xi nobles a peece, so that he brought them up in godlynes and feare of God. He kept hospitalite for his poore neighbours, and some almee he gave to the poore; and all this did he of the said ferme. Where he that now hath it payeth xvi pound by the yeare, or more, and is not able to doe anything for his prince, for himselfe, nor for his children, or geve a cup of drinke to the poore.

After the accession of the boy-king, Edward VI, the lord protector appointed an extraordinary commission for the redress of the grievances attendant upon inclosures, exhorting its members to fulfill the duties of their office without any respect to persons, and fearlessly to bring to account those who had violated the laws of Henry VIII for the maintenance of tillage. "A kind of memorial," says Professor Nasse, "has been handed down to us of the state of things which was laid before the commission by John Hales, one of their most active members. These could not be painted in darker colors than they are there described. Ruined dwellings and evicted husbandmen were everywhere to be seen; where formerly 12,000 men dwelt, there were now scarcely 4,000; sheep and oxen, destined to be eaten by man, have devoured men; the defensive power of the country had fallen into danger by depopulation; the King had been obliged to take into his service foreign troops, German, Italian, and Spanish, &c. He specifies the following five principal heads of grievances: Ruin of villages and agricultural buildings; conversion of arable land into pasture; great multitude of sheep; amalgamation of farms; and the failure of hospitality on account of the dissolution of monasteries. He also expressly mentions that inclosures, (in themselves,) which every one undertakes himself on his own ground and soil, are beneficial to the common good, the question only being of such inclosures by which the rights of others suffered, when 'houses of husbandry were pulled down or arable land converted to pasture.'"

These representations, as well as the recommendations based upon them, were barren of results; and Hales complained that the sheep had been intrusted to the protection of the wolf.

"It is no wonder," says Nasse, "that under such circumstances the

entry population attempted to apply a remedy themselves. The formidable insurrection of the peasantry in 1549, in the eastern counties, had principally for its object the removal of the inclosures. Similar disturbances were frequently repeated at a later period on a smaller scale; and even at the end of the sixteenth and commencement of the seventeenth century, insurrections of the peasants occurred in Oxfordshire and other places in central England, in order to root out the hedges (levellers) and to restore the tillage.

"We may learn, also, that the agrarian revolution progressed under Elizabeth, from, among other things, an interesting dialogue, 'A comendious or briefe examination of certayne ordinary complaints,' &c., W. S., gentleman, of London, 1581. In this dialogue, the inclosures, the crying evil of the times, were discussed by different persons—a doctor, a nobleman, and a farmer. The farmer complains that he and his class are ruined by the inclosures, which raise rents and cause a dearth of arable land. He has witnessed in his district, in a circuit of less than six English miles, in the last seven years, a dozen plows lying idle, and the lands where sixty persons and more had gained their living, were now occupied by the cattle of one.

"It is still very remarkable how the supplanting of so many landed proprietors just then took place, when that class among them which stood in the most unfavorable position in a legal point of view, had obtained a protection at law for their rights of property.

"In spite of this, these copyholders were driven in great numbers from their rural hides.\* When an extraordinary royal commission like that of the protector, ordered to inquire into illegal inclosures and the eviction of peasants, could not prevail against the ruling classes, it is very easy to conceive that the protection of the high courts of judicature or the judges in their circuits could afford little help to the poor small peasant. His rights rested on the custom of the manor, which was to be proved on the manor-roll, in the possession of the lord of the manor; and a copyholder could lose these rights by numerous acts, by which he failed in his obligations toward the lord, or even by acting otherwise than in consonance with rights established by custom of the manors. The small copyholders were not in a position to establish such rights before learned tribunals when opposed by experienced advocates. Latimer, on this count, accuses the judges even of injustice and corruption, (being open to bribes,) and maintains that, 'in these days gold is all-powerful with the tribunals.' Certainly, also, a time like that under the rule of Henry VIII, and the following years, while so great a revolution in church and state was in progress, could not have been favorable for the support of rights which were dependent upon custom.

"It is no part of our task here to follow these movements beyond the sixteenth century; but this much is certain, that however powerfully they showed themselves at that time, they only attained their object to a limited extent. The official reports concerning the duration of the agrarian community up to this century have been already referred to; and it has also been shown that the smaller landed proprietors had certainly in no wise completely disappeared in the sixteenth century.

"The freeholders had, for the most part, maintained their holdings, and the copyholders had not nearly all been supplanted or converted into leaseholders. Still, in the beginning of the seventeenth century, Coke could say, in a well-known judgment, that the third part of England

\* The term *hide* refers to a quantity of land, the extent of which is variously estimated from 60 to 100 acres.

consisted of copyhold. But the revolution which then began has continued even in our times. Its progress has been sometimes quicker, sometimes slower, and gradually the connection which there was at the commencement between the two phenomena—inclosures and peasant eviction—has been less close; but it still remains unmistakable that, among the many circumstances which have caused the complete disappearance of the medieval peasant class, the first and most important was the dissolution of the old communities in land."

Admitting that the dissolution of these communities and the establishment of separate and independent tillage were essential to the progress of agriculture, it must still be regarded as a great misfortune to the masses of the English people, and, indeed, to England as a nation, that this change was not effected without a complete sacrifice of the interests of the peasant to those of the noble.

It has been shown that the abolition of the feudal relations in Prussia was followed by measures expressly designed for the creation of a freeholding peasantry, and substantially the same thing occurred in other German states. In like manner the emancipation of the Russian serf\* was accompanied by measures which exhibited at once the humane regard of the government for his future well-being and its enlightened recognition of the fact that material independence is an essential condition of true freedom—a condition without which the much-vaunted civil liberty of Anglo-Saxon nations may become to millions of the unfortunate an empty name.

In France, Switzerland, Belgium, Holland, and, indeed, throughout the greater part of Europe, the people who cultivate the soil are, for the most part, the people who own it. In England the agricultural laborer does not own so much as the hovel in which he dwells. "Theirs," says Mr. Fawcett,† speaking of the members of this class, "is a life of incessant toil for wages too scanty to give them a sufficient supply even of the first necessities of life. No hope cheers their monotonous career. A life of constant labor brings them no other prospect than that, when their strength is exhausted, they must crave as suppliant mendicants a pittance from parish relief. Many classes of laborers have still to work as long and for as little remuneration as they received in times past; and one out of every twenty inhabitants of England is sunk so deep in pauperism, that he has to be supported by parochial relief."

In the paper on "The Land Laws of England," from which an extract has been already given, Mr. C. Wren Hoskyns speaks as follows:

It is true we commonly hear our agricultural system spoken of as comprehending the landlord, the tenant, and the laborer, and so, in a certain sense, it does; but no one who considers the position of the laborer in English agriculture will assert that he has any fixed personal tie within the structure—that he stands to it in any relation but that of an auxiliary, more or less in demand at different seasons of the year, subject to the precarious vicissitudes of that demand; no longer, indeed, as in former times *adscriptus glebe*—free to go and come as he pleases, but without part or parcel in the land he helps to cultivate, or any certain abode upon it, near it, or in connection with it, for himself or for his family.

In many respects the people of England are far more fortunate than their neighbors on the continent. The insular position of the country exempts it from the ravages of war, greatly diminishes the cost of the military establishment, and, by warding off external dangers, increases liberty at home. Enriched by an enormous commerce and a prodigious development of manufacturing industry, and enjoying the blessings of free speech, a free press, and a government which is republican in all but the name, the middle classes occupy a truly enviable position; and

\* See note on page 122.

† Economic Position of the British Laborer, p. 6.

even the more fortunate of the working men enjoy a very fair degree of comfort. But, whatever may be said of other classes of the English people as compared with corresponding classes in other countries, no one can seriously compare the condition of the agricultural laborer\* of Great Britain with that of the peasant proprietor of France or Belgium, who, however severe may be his toil, has a home from which no landlord can expel and an employment from which no master can dismiss him. The comparative advantages of large and small farms, with a view to economy of cultivation, may, perhaps, be regarded as an open question; but to those who regard the state of the people as being of greater moment than the state of agricultural industry, no system of land-tenure will seem less satisfactory than one which reduces the great mass of the tillers of the soil to the condition of hirelings and paupers.

#### FROM THE REIGN OF ELIZABETH TO THAT OF GEORGE III.

From the causes already referred to, as well as from others that need not here be discussed, the circumstances of the working people of England during the Tudor reigns underwent a decided change for the worse. "In 1495," says Wade, "A laborer could purchase with his wages 199 pints of wheat; in the year 1593, only 82 pints; in 1610, only 46 pints." Eden expresses the opinion that in the sixteenth century† the consumption of meat was principally confined to the cities, and that bread commonly of an inferior quality was the principal diet of the laboring people. About the year 1576, Harrison wrote that "the gentilitie" commonly provided themselves "sufficientlie of wheate" for their own tables, while their households and their poor neighbors in some shires were obliged to content themselves with rye or barley. He adds, "Yea, and in time of dearth many with bread made either of peas, beans, or oats, or of all together, and some acorns among, of which scourge the poorest do soonest taste, sith they are least able to provide themselves of better. I will not say that this extremity is oft so well seen in time of plenty as of dearth, but if I should, I could easily bring my trial. For albeit that there be much more ground eared now almost in every place than hath been of late years, yet such a price of corn continues in each town and market that the artificer and poor laboring men is not able to reach it, but is driven to content himself with beans, peas, oats, tares, and lentils." The following extract from the "orders, rules, and directions," issued by the justices of the peace of the county of Suffolk in the year 1588, affords an example of the food then allowed in houses of correction, and may, perhaps, be regarded as supplying some indication of the ordinary fare of the poor:

*Item.* It is ordered, that every person committed to the said house, shall have for their diett, theis portions of meate and drinke followinge, and not above, (vis:) At every dynner and supper on the fleshe daies, bread made of rye, viii ounces troye weight, with a pynte of porridge, a quarter of a pound of fleshe and a pynte of beare, of the rate of iiis. a barrell, every barrell to conteyne xxxvi gallands; and on every fyshe daie at dynner and supper the like quantitie made eyther of milk or pease or such lyke, and the thurd part of a pound of cheese, or one good heringe, or twoe white or redd, accordinge as the keper of the house shall thinke meete.

*Item.* It is ordered that such persons as will applie their worke, shall have allowance of beare and a little bread between meales, as the keper of the house shall fynd that he doth deserve in his said worke.

*Item.* It is ordered, that they which will not worke shall have noe allowance but bread and beare only, untill they will conforme themselves to worke.

\* It must be confessed that a large proportion of the unskilled laborers of the towns and cities are quite as badly off as the most wretched of the agricultural laborers.

† It was probably the latter part of that century which he chiefly had in view.

In the reign of Henry VIII bacon appears to have formed a part of the regular diet of laborers; and Latimer, in one of his sermons, says it "is their necessary meate to feede one, which they may not lacke." Tusser, who died about the year 1580, or 1585, says,

Good ploughmen looke weekly, of custome and right,  
For rost meat on Sundaies and Thuredaies at night.

But if roast meat was used by "good ploughmen" twice a week, it seems probable that at the time Tusser wrote meat of some kind, or fish, was used as often as once a day. As late as the year 1532 the price of beef was fixed by act of Parliament\* at a halfpenny per pound, and that of mutton at three farthings. These rates, low as they now appear, were higher than those which had previously prevailed, for we read in Stow's Chronicle that fat oxen were sold for £1 0s. 8d. a head; fat calves or wethers for 3s. 4d.; and fat lambs for 1s. "The butchers of London," says Stow, "sold penny pieces of beef for the relief of the poor—every piece two pounds and a half, sometimes three pounds, for a penny; and thirteen, and sometimes fourteen, of these pieces for twelve pence." Mr. Froude informs us that the act just mentioned was repealed in consequence of the complaints against it, but that prices never fell again to what they had been. He states, however, that as late as 1570 beef was sold in the gross for a halfpenny a pound, while in country markets a fat goose could be bought for fourpence, a capon for three-pence or fourpence, a hen for twopence, and a chicken for a penny. But in the later years of Queen Elizabeth's reign there was a general and excessive rise of prices, in consequence of an uninterrupted succession of bad seasons. In the year 1587 wheat rose to £3 4s. per quarter; in 1594 it was £2 16s.; and in 1595 £2 13s. 4d. Blomefield, in his history of Norfolk, states that during the latter year the price of wheat at Norwich was £2 per quarter; of rye, £1 10s.; of barley, £1; of oatmeal, £2; of beef, 3s. per stone; of the best sheep, 14s. *per capita*; of lambs, 5s.; of calves, £1; of fat capons, 3s. 4d.; of pigeons, 3d.; of rabbits, 8d.; and of cheese, 4d. per pound. He adds that in the beginning of 1596 prices fell, but says that "by reason of a wet May they rose again, so that wheat was sold in the market at 28s. a comb in the beginning of August, but fell to 18s. the same month; and in the month following all things rose again to such large prices that it was a very hard year with the poor."

How high these prices were for those times may be better appreciated if they are compared with those of the one hundred and forty years embraced in Mr. Rogers's table, from which it appears that the average price of wheat from 1261 to 1400, inclusive, was only 5s. 10½d. per quarter; that of barley, 4s. 3½d.; that of oats, 2s. 5½d.; and that of rye, 4s. 4½d. Froude states† that in the middle of the fourteenth century the average price of wheat was 10d. per bushel, and that of barley 3s. per quarter. "With wheat," he says, "the fluctuation was excessive; a table of its possible variations describes it as ranging from 18d. the quarter to 20s.; the average, however, being 6s. 8d. \* \* \* \* The same scale, with a scarcely appreciable tendency to rise, continued to hold until the disturbance in the value of the currency. In the twelve years from 1551 to 1562, although once before harvest wheat rose to the extraordinary price of 45s. the quarter, it fell immediately after to 5s. 4d. Six and eight pence continued to be considered in Parliament as the average; and, on the whole, it seems to have been maintained for that time with little or no variation."

\* Statute 3, 24 Henry VIII. † History of England, Vol. I, p. 29.

The high prices which Blomfield gives as prevailing at Norwich in 1596 were exceeded in many other portions of the kingdom. At Bristol wheat sold as high as 18s. and 20s. per bushel and rye at 10s.; and, according to an old manuscript chronicle, such was the prevailing distress that "every alderman and worshipful man, and every burgess of this city that was of any worth, was appointed every day to find with victuals at his table so many poor people that wanted work, whereby the poor of our city were all relieved and kept from starving or rising."

During the same period the prices of a large number of commodities were greatly enhanced by a cause that was artificial in its character, namely, the granting of patents of monopoly by the Crown. "The English sovereigns," says Macaulay,\* "had always been intrusted with the supreme direction of commercial police. It was their undoubted prerogative to regulate coin, weights, and measures, and to appoint fairs, markets, and ports. The line which bounded their authority over trade had, as usual, been but loosely drawn. They therefore, as usual, encroached on the province which rightfully belonged to the legislature. The encroachment was, as usual, patiently borne till it became serious. But at length the Queen took upon herself to grant patents of monopoly by scores. There was scarcely a family in the realm which did not feel itself aggrieved by the oppression and extortion which this abuse naturally caused. Iron, oil, vinegar, coal, saltpeter, lead, starch, yarn, skins, leather, glass, could be bought only at exorbitant prices. The House of Commons met in an angry and determined mood. It was in vain that a courtly minority blamed the speaker for suffering the acts of the Queen's Highness to be called in question. The language of the discontented party was high and menacing, and was echoed by the voice of the whole nation. The coach of the chief minister of the Crown was surrounded by an indignant populace, who cursed the monopolies, and exclaimed that the prerogative should not be suffered to touch the old liberties of England. There seemed for a moment to be some danger that the long and glorious reign of Elizabeth would have a shameful and disastrous end. She, however, with admirable judgment and temper, declined the contest, put herself at the head of the reforming party, redressed the grievances, thanked the Commons in touching and dignified language for their tender care of the general weal, brought back to herself the hearts of the people, and left to her successors a memorable example of the way in which it behooves a ruler to deal with public movements which he has not the means of resisting."

The patents of monopoly, however, were too valuable a source of income to be overlooked by Elizabeth's successor, by whom they were renewed to be again abolished. Even the exercise of skilled industry was hampered by the arbitrary and exclusive regulations of the incorporated guilds and trade companies which monopolized the commerce and industry of the principal cities, and vigilantly guarded their prerogatives against all trespassers.

The system of regulating wages by statute, which has been noticed further back, was maintained under Elizabeth. An act passed in the fifth year of her reign, (A. D. 1563,) recognized the rise of prices which had already taken place, and in view of which the wages fixed under Henry VIII had become inadequate to the needs of the laborer. It empowered the justices of the peace to fix the rates of wages from year to year, according to "the plenty or scarcity of the time and other circumstances necessarily to be considered." The following synopsis of its

\* History of England, Vol. I, p. 49.

leading provisions, as well as those of two other statutes passed a few years later, is given by Eden, in the work already referred to:

The persons affected by it may be divided into three classes: menial servants, laborers, and apprentices. With respect to the first, all single persons between twelve years old and sixty, and married ones under thirty years of age, and unmarried women between twelve and forty, not having a visible livelihood, are compellable by two justices to go out to service in husbandry or certain specific trades; and no master can put away his servants, or servant leave his master, before the expiration of his term without the assent of a justice, nor even at the end of his term without giving a quarter's warning. Servants departing from their masters before the end of their term, unless upon some reasonable cause to be allowed by a justice, or refusing to serve for the wages appointed by the magistrates, are punishable with imprisonment till they consent to serve. The givers of greater wages than what were allowed by the statute were made liable to ten days' and the takers to twenty-one days' imprisonment.

Laborers and artificers, hired by the day or week, are bound to work, in summer, from five in the morning till between seven and eight at night, and in winter from daylight till dark; they are allowed the same time for meals as in former statutes. Artificers are compellable to serve in getting in the harvest. Laborers, who cannot procure harvest-work in their own countries, are permitted to go into other countries during the hay and corn harvest, provided they carry with them a testimonial from a justice of peace.

The statute enables householders, in time of husbandry, to receive apprentices under the age of eighteen to serve till twenty-four years of age by indenture; and the householders in corporate towns, exercising any art, mystery, or manual occupation there, and all persons elsewhere using the trades specified in the statute, are empowered to take apprentices, under certain qualifications, to serve them for seven years, provided the term does not expire before the apprentice is twenty-four years of age.

And male children of poor persons, by a subsequent statute, may be apprenticed out by the overseers, with consent of two justices, till twenty-four years of age, and females till twenty-one, to such persons as are thought fitting. Blackstone remarks that "gentlemen of fortune and clergymen are equally liable with others to such compulsion; and that the statutes for the regulation of wages extend only to servants in husbandry, it being impossible for any magistrate to be a judge of the employment of menial servants, or, of course, to assess their wages."

The first Parliament under James I extended the rating powers of the magistrates to the wages of "laborers, weavers, spinsters, and workmen, or workwomen, whatsoever, either working by the day, week, month, or year, or taking any work at any person's hand whatsoever, to be done in great or otherwise." An act intended to have a somewhat similar effect was passed in the thirty-ninth year of Elizabeth, but appears to have been inoperative.

One of the effects of this extension of the power of the magistrates was to enable employers in many cases to fix the rate of wages for their own workmen. In respect to one branch of business this evil appears to have been foreseen; for it was provided by the last clause of the act above referred to, "that no clothier, being a justice of the peace in any precinct or liberty, should be any rater of wages for any weaver, tucker, spinster, or other artisan that depended upon the making of cloth; and in case there were not above two justices of the peace within such precinct but such as were clothiers, the wages should be rated and assessed by the major part of the common council of such precinct or liberty, and such justice or justices as were not clothiers."

Before the close of the reign of James I, (1625,) some amelioration in the condition of the working classes had apparently taken place. The discovery of America had by this time begun to exhibit its effect in stimulating commercial enterprise, and manufactures had received a new impetus in consequence of the ferocious persecutions of Philip II and his lieutenants (particularly the notorious Alva) in the Netherlands, which, during the preceding reign, had compelled thousands of industrious Flemings to seek a refuge in England, where they established the manufacture of baizes, serges, and other stuffs, and successfully carried on a variety of textile industries.



The policy of encouraging ship-building by public bounties had been inaugurated under Elizabeth, and under James large sums of money were devoted to this object, while the twenty-two years of uninterrupted peace with which this reign was favored afforded a rare opportunity for the development of the new industries which had taken root. The increase of capital is indicated by the fall in the legal rate of interest, which during this reign was reduced from 10 to 8 per cent., and whatever may have been the condition of the working classes, that of the country at large appears on the whole to have been prosperous.

The increasing activity of industry, no doubt, diminished the amount of pauperism and vagrancy; but the increase of wages which it brought with it does not appear to have been equal to the increase in the prices of commodities. From a proclamation issued in 1623, directing the purchase of wheat, rye, and barley for storage in public magazines, whenever these grains fell below 32s., 18s., and 16s. per quarter, respectively; it appears that these prices were at that time considered low; and from the Windsor table of prices it appears that the average price of middling wheat from 1606 to 1625 was £1 14s. 1½d. per bushel, (Winchester measure.) Meat was also extremely high in comparison with its price in former times. Mr. Birch, in a life of Prince Henry, presented the prices paid for meat by the purveyors of the prince's household, and it appears that beef was 3½d. and mutton 3¾d. the pound. This was probably about the year 1610, at which time the wages allowed by the magistrates in a midland county to men employed in agricultural labor ranged from 6d. to 10d. a day, without board, while women employed in hay-making were allowed 4d. a day without board.

From a contract for victualing the navy, entered into by King James in 1622, the text of which is given in Rymer's "*Foedera*," we obtain the following statement of the fare allowed to common seamen at the time in question, from which some idea may perhaps be formed of the diet of the laboring classes:

Every man's daily allowance was one pound of biscuit, one gallon of beer, and two pounds of beef, with salt, four days in the week; or else, instead of beef, for two of the four days, one pound of bacon, or pork salted, and one pint of pease, as heretofore hath been used and accustomed; and for the other three days of the week, one quarter of stock-fish, half a quarter of a pound of butter, and a quarter of a pound of cheese, except that on Friday only one meal of fish, butter, and cheese was allowed. Herrings or other fish, according to the season, were to be provided in lieu of stock-fish.

The allowance to the contractor was, for every man's victuals, in harbor, sevenpence half-penny, and at sea, eightpence the day.

In a tract published in 1615, advocating the fitting out of busses\* to enable the English to compete with the Dutch in the herring fisheries, we find a minute statement of the provisions which the author considered necessary for the sustenance of sixteen men and boys on one of these vessels for a period of sixteen weeks, together with a statement of the price of each commodity. The proposed daily allowance for each man or boy was one gallon of beer, one pound of biscuit, half a pound of oatmeal or pease, one-fourth pound of butter, one-half pound of Holland cheese, and as much fresh fish as they could eat. In addition to the above each man or boy was to be allowed 2 pounds of bacon (for four meals) per week, and 3 pints of vinegar daily were to be divided among the entire number. There was also an allowance of 800 Kentish fagots for fuel to last through the voyage.

The prices were as follows: Beer, £2 per tun, or 24d. per gallon; biscuit, 13s. 4d. per cwt., (of 112 pounds,) or 1¾d. per pound; oatmeal or

\* The name of a class of fishing-vessels.

pease, 4s. per bushel; bacon, 3½d. per pound; butter, £1 per firkin, (56 pounds,) or 4½d. per pound; cheese, 2½d. per pound; vinegar, £1 per tierce, (of 42 gallons,) or 5½d. per gallon; faggots, 8s. per 100.

The wages of the crew were stated as follows: Master or captain, per month, £5; two mates, each, per month, £1 4s.; six men, each, per month, £1; six other men, each, per month, 16s.; a boy, per month, 6s. It should be observed that these wages are high when compared with those of agricultural laborers at the same period.

In forming an estimate of the fare of the common people at the time under consideration, it must be remembered that many esculent plants, now commonly used, were then but little known, or were confined exclusively to the tables of the rich. "Potatoes," says Eden, "which are now very generally used by the poor in every part of England, where fuel is cheap, were, in King James's reign, considered as a great delicacy. They are noticed among the different articles provided for the Queen's household; the quantity, however, is extremely small, and the price is 1s. per pound. In 1619 two cauliflowers cost 3s., and sixteen artichokes 3s. 4d.; prices which would now be deemed extravagant, but they were then regarded as rarities, as they are still\* in the remote parts of the kingdom. Tea and sugar, which are now to be met with in most cottages in the southern parts of England, were still greater rarities. The latter is, indeed, noticed by many authors even as early as the fourteenth century, but continued to be very dear even in James's reign."

From a small pamphlet entitled "Grievous Grones for the Poore," published in 1622, it appears that beggary was still a prevalent evil, and that the poor laws were not rigidly enforced; for the writer complains that "though the number of the poore do dailie encrease there hath beene no collection for them, no not these seven yeares, in many parishes of this land, especiallie in countrie townes."

During the early years of the reign of Charles I the condition of the working classes was much the same as it had been under his immediate predecessor; and after the commencement of the civil war, as well as under the Protector, the attention of the government was so much engrossed with exciting public events as to leave little time for legislation in regard to the interests of the poor. In 1646 there was published a small quarto tract, entitled "Stanleye's Remedy: or the way how to reform wandring beggers, theeves, highway-robbers, and pickpockets," in which it was argued that the condition of the poor might be greatly relieved "by the means of work-houses in all cities, market-townes, and all able parishes in the kingdome." The following extracts from the concluding portion of this pamphlet will serve to illustrate the prevalence of mendicity and crime, as well as the summary manner in which the authorities were accustomed to deal with these evils:

The poor may be whipped to death and branded for rogues, and so become felons by the law, and the next time hanged for vagrancie, (by an act made in the days of Queen Elizabeth, of famous memorie,) before any private man will set them to work, or provide houses for labor, and stock and materials for them. The public must join their shoulders to the work, else it will never be done.

To conclude, it is very lamentable that poor rogues and beggars should be whipped, or branded according to law, or otherwise punished, because they are begging, or idle, and do not work, when no place is provided for them to set them to work. I have heard the rogues and beggars curse the magistrates unto their faces, for providing such a law to whip and brand them, and not provide houses of labor for them.

I make no doubt (most gracious soveraigne!) but it is evident to all men, that beg

\* This was near the close of the last century.

gary and thievery did never no more abound within this your realm of England; and the cause of this misery is idleness, and the only means to cure the same must be by his contrary, which is labor; for tell the begging soldier, and the wandering and sturdy beggar, that they are able to work for their living, and bid them go to work, they will presently answer you, they would work if they could get it. But if work-houses were set up in all able parishes, it will take away all such defensory and usual answers, and then it will be tried whether it will work or not.

There is no doubt that the civil war, which at the time this pamphlet appeared had been in progress for several years, occasioned much distress among all classes; yet manufacturing and mechanical industry had taken root so firmly in the country, that under the commonwealth it was quickly restored to a prosperous condition; and the progressive increase of capital, as compared with the demand for it, is indicated by the fact that in 1651 the legal rate of interest was reduced from 8 to 6 per cent.

In 1662 there was passed the important statute in relation to settlements, by which the mass of the laboring poor were practically restricted to a residence in the parish in which they were born. Up to this time they had been free to seek employment wherever it was to be found, only those who were unable or unwilling to work being compelled to reside in the places of their settlement, *i. e.*, the places where in case of necessity they were entitled to parish relief. But the act of 13 and 14 Charles II,\* provided against the possibility that workmen might at some future time become chargeable to the parish by preventing them from wandering from their usual places of abode, "lest particular parishes," says Eden, "which, from their situation, their privileges, or other circumstances, held out inviting prospects to new-comers, should in the end be overburdened with poor." By this act it was provided "That the residence in a parish necessary in order to procure a settlement should be reduced to forty days, and that within that time it should be lawful for any two justices of the peace, upon complaint made by the church-wardens and overseers of the poor, to remove any new-comer to the parish where he was last legally settled, unless he either rented a tenement of ten pounds a year or could give such security for the discharge of the parish where he was living as the two justices should deem sufficient."

"The law respecting settlements," says Eden, "unavoidably led to the commission of frauds, both by poor persons who were desirous of obtaining settlements, and by the parish officers who allowed them to acquire settlements, by a clandestine residence in the parish they came to; it was, therefore, enacted by the 1st of James II that the forty days' continuance of any new-comer should be accounted only from the time of his delivering notice, in writing, of the place of his abode and the number of his family (when he had any) to one of the church-wardens or overseers of the parish to which he should remove; and in order to prevent parish officers from collusively receiving such notices, it was further enacted, by the 3d of William and Mary, that the forty days' continuance in a parish should be accounted only from the publication of such notice by its being read in the church, immediately after divine service, on the Sunday after it was delivered to the overseer.

While, however, the legislature thus restrained the laboring poor from obtaining settlements by a notice, it appointed other ways by which a person might gain a settlement without the publication of a notice, namely, by being charged to the public taxes and paying them; by exe-

\*Although Charles actually ascended the throne in 1660, his reign is officially dated from the time of his father's death in 1649, and the various acts of Parliament are numbered accordingly.

cuting an annual office in the parish, and serving in it a year; by serving an apprenticeship in the parish; by being lawfully hired into any parish for a year, and (as a subsequent statute requires) continuing in the same service a twelvemonth.

As might have been foreseen, the effect of these regulations was to keep large numbers of people in poverty and idleness in their own parishes, when employment might have been readily obtained in other localities, had they been free to go and seek it. This was set forth in the preamble to the act of 1697, which provided that if any person coming to reside in a parish should deliver to the church-wardens or overseers a certificate under the hand and seal of the church-wardens and overseers of the parish where he was last legally settled, allowed and subscribed by two justices of the peace, he should not be removable merely on account of his being likely to become chargeable, but only on his becoming actually chargeable, to the parish, when the parish which granted the certificate should be required to pay the expense both of his maintenance and removal. It was not, however, until near the close of the eighteenth century that the law was so changed as to afford any material relief from the unwholesome and senseless restrictions imposed by the law of settlements.

It does not appear that the reigns of Charles II and his immediate successor were unfavorable to the industrial and commercial prosperity of the country, however unsatisfactory they may have been in their political aspects. In 1662, the second year after the Restoration, the revenue from customs amounted to £414,946; in 1688 it had increased to £781,987. The intervening period had also been marked by an increase in the number of buildings, the consumption of luxuries, and other indications of material prosperity. Sir William Petty, in his *Political Arithmetic*, published in 1676, says that the number of houses when he wrote was double what it had been forty years before. The royal navy had doubled in the same period, and the shipping of Newcastle had increased fourfold. He also notices the increased imports of wine and the general improvement in the style of living. His contemporary, Sir Joshua Child, observes that in 1688 the number of men on 'change worth £10,000 was greater than the number worth £1,000 had been in 1650; that in those earlier times gentlewomen thought themselves well clothed when wearing a serge gown, in which a chamber-maid in 1688 would have been ashamed to appear; and that, besides the great increase in clothes, plate, jewels, and household furniture, the number of coaches had increased one hundred fold. How far the working classes shared in these improved conditions we are not informed.

The following classification of the population of England by professions, occupations, &c., for the year 1688, is based upon the estimates of Gregory King:

## FAMILIES AND THEIR INCOMES IN 1688.

Number of families.	Ranks and professions.	Number per family.	Income per family.
160	Temporal lords .....	40	£2,800
36	Spiritual lords .....	20	1,300
680	Baronets .....	16	830
800	Knights .....	13	630
2,000	Squires .....	10	450
12,000	Gentlemen .....	600	280
5,000	Persons in greater offices .....	600	240
5,000	Persons in lesser offices .....	600	120

## FAMILIES AND THEIR INCOMES IN 1688—Continued.

Number of families.	Ranks and professions.	Number per family.	Income per family.
2,000	Eminent merchants and traders .....	3	£400
3,000	Lesser merchants and traders .....	6	200
10,000	Persons in the law .....	7	140
2,000	Eminent clergymen .....	6	60
8,000	Lesser clergymen .....	5	45
40,000	Freeholders of the better sort .....	7	24
140,000	Freeholders of the lesser sort .....	5	50
150,000	Farmers .....	5	44
16,000	Persons in liberal arts and sciences .....	5	69
40,000	Shopkeepers and tradesmen .....	4	45
60,000	Artisans and handicraftsmen .....	4	40
5,000	Naval officers .....	4	80
4,000	Military officers .....	4	60
511,566	Average .....	5½	67.0
50,000	Common seamen .....	3	20.0
364,000	Laboring people and out-servants .....	3½	15.0
40,000	Cottagers and paupers .....	3½	6.10
35,000	Common soldiers .....	2	14.0
489,000	General average .....	3½	10.10

It may not be amiss to present here some extracts from the account which Macaulay\* gives of the condition of the English working classes a few years before the revolution of 1688: "The great criterion," says he, "of the state of the common people is the amount of their wages, and as four-fifths of the common people were, in the seventeenth century, employed in agriculture, it is especially important to ascertain what were then the wages of agricultural industry. On this subject we have the means of arriving at conclusions sufficiently exact for our purpose.

"Sir William Petty, whose mere assertion carries great weight, informs us that a laborer was by no means in the lowest state who received for a day's work 4*d.* with food, or 8*d.* without food. Four shillings a week, therefore, were, according to Petty's calculation, fair agricultural wages.

"That this calculation was not remote from the truth we have abundant proof. About the beginning of the year 1685 the justices of Warwickshire, in the exercise of a power intrusted to them by an act of Elizabeth, fixed, at their quarter sessions, a scale of wages for the county, and notified that every employer who gave more than the authorized sum, and every working-man who received more, would be liable to punishment. The wages of the common agricultural laborer, from March to September, were fixed at the precise amount mentioned by Petty, namely, 4*s.* a week without food. From September to March the wages were to be only 3*s.* 6*d.* a week.

"But in that age, as in ours, the earnings of the peasant were very different in different parts of the kingdom. The wages of Warwickshire were probably about the average, and those of the counties near the Scottish border below it; but there were more favored districts. In the same year, 1685, a gentleman of Devonshire, named Richard Dunning, published a small tract, in which he described the condition of the poor of that county. That he understood his subject well it is impossible to doubt, for a few months later his work was reprinted, and was, by the magistrates assembled in quarter sessions at Exeter, strongly

\* History of England, Vol. I, pp. 323-330, Appleton's edition of Macaulay's works.

recommended to the attention of all parochial officers. According to him, the wages of the Devonshire peasant were, without food, about 5s. a week.

"Still better was the condition of the laborer in the neighborhood of Bury St. Edmunds. The magistrates of Suffolk met there in the spring of 1682 to fix a rate of wages, and resolved, that where the laborer was not boarded he should have 5s. a week in winter and 6s. in summer.

"In 1661 the justices of Chelmsford had fixed the wages of the Essex laborer, who was not boarded, at 6s. in winter and 7s. in summer. This seems to have been the highest remuneration given in the kingdom for agricultural labor between the restoration and the revolution; and it is to be observed that in the year in which this order was made the necessities of life were immoderately dear. Wheat was at 70s. the quarter, which would even now be considered as almost a famine price. \* \*

"In the year 1680, a member of the House of Commons remarked that the high wages paid in this country made it impossible for our textures to maintain a competition with the produce of the Indian looms. An English mechanic, he said, instead of slaving like a native of Bengal for a piece of copper, exacted a shilling a day. Other evidence is extant, which proves that a shilling a day was the pay to which the English manufacturer then thought himself entitled, but that he was often forced to work for less. \* \* \*

"One of the most remarkable of the popular lays chanted about the streets of Norwich and Leeds in the time of Charles the Second may still be read on the original broadside. It is the vehement and bitter cry of labor against capital. It describes the good old times when every artisan employed in the woolen manufacture lived as well as a farmer. But those times were past. Sixpence a day was now all that could be earned by hard labor at the loom. If the poor complained that they could not live on such a pittance, they were told that they were free to take it or leave it. For so miserable a recompense were the producers of wealth compelled to toil, rising early and lying down late, while the master clothier, eating, sleeping, and idling, became rich by their exertions. A shilling a day, the poet declares, is what the weaver would have, if justice were done. We may, therefore, conclude that in the generation which preceded the revolution, a workman employed in the great staple manufacture of England thought himself fairly paid if he gained 6s. a week. \* \* \*

"It seems clear, therefore, that the wages of labor, estimated in money, were, in 1685, not more than half of what they now are, and that there were few articles important to the working-man of which the price was not, in 1685, more than half of what it now is. Beer was undoubtedly much cheaper in that age than at present. Meat was also cheaper, but was still so dear that hundreds of thousands of families scarcely knew the taste of it. In the cost of wheat there has been very little change. The average price of the quarter, during the last twelve years of Charles II, was 50s. Bread, therefore, such as is now given to the inmates of a workhouse, was then seldom seen, even on the trencher of a yeoman or of a shopkeeper. The great majority of the nation lived almost entirely on rye, barley, and oats.

"The produce of tropical countries, the produce of the mines, the produce of machinery, was positively dearer than at present. Among the commodities for which the laborer would have had to pay higher in 1685 than his posterity now pay were sugar, salt, coals, candles, soap, shoes, stockings, and generally all articles of clothing and all articles of

bedding. It may be added that the old coats and blankets would have been not only more costly, but less serviceable than the modern fabrics."

Mr. W. T. Thornton, in his work on "Labor," published in 1869, takes issue with Macaulay in respect to the advantages which, according to the latter, the modern English workman possesses over the workman who lived in the last days of the Stuarts. In support of his view he cites "that most minute, careful, and comprehensive of inquirers," Daniel Defoe, whose description may be taken as applying to the early years of the eighteenth century. "It is curious to observe," says Mr. Thornton, "how, item by item, as if of malice aforethought, he disproves the whole of Lord Macaulay's proofs.

"Although in Yorkshire, and generally in the Bishoprick of Durham, a laborer's weekly wages might, he says, be only 4s., in Kent, and several of the southern and western provinces, they were 7s., 9s., or 10s. Often when he (Defoe) had wanted a man for work, and had offered 9s. a week to sturdy varlets at his door, he had been told to his face that they could get more by begging, and 'once,' says he, 'I put a lusty fellow in the stocks for making the experiment.' Again, he represents himself as habitually paying six or seven men together on a Saturday night, the least 10s., and some 30s., for work, and he mentions one man who for several years gained of him from 16s. to 20s. a week by his handiwork at the 'mean, scoundrel employment of tile-making.' Turning to manufactures, he says nothing was more common than for journeymen weavers to earn from 15s. to 30s. a week; and he appeals to silk-throwsters, whether they were not in the habit of giving 8s., 9s., and 10s. 'to blind men and cripples to turn wheels.' Then he speaks of 'the difficulty of raising soldiers, the vast charge the kingdom was at to officers to procure men, the many little and *not over honest* methods used to entice them into the service;' and all this he explains by the ease and plenty in which Englishmen lived. If, he argues, they had 'wanted employment, and consequently bread, they would have carried a musket rather than starve, and have worn the Queen's cloth, or anybody's cloth, rather than go naked and live in rags and want;' but he that could earn 20s. at an easy, steady employment, must be mad or drunk when he 'lists for a soldier to be knocked on the head for 3s. 6d. a week.'

"True, the high wages that prevailed were not always turned to the best account. They were higher here than in any other country in the world, but whereas a Dutchman with 20s. a week would be sure to grow rich and to leave his children in very good condition, an Englishman 'could often but just live, as it was called,' might, perhaps, 'hardly have a pair of shoes to his feet, or clothes to cover his nakedness, and might have his wife and children kept by the parish.' But then this was caused entirely by the extravagant humor of our poor people in eating and drinking, for they 'ate and drank, but especially the latter, three times as much in value as any sort of foreigners of the same dimensions in the world.' If it had not been for the ale-house, every one might have lived comfortably, for it was incontestable that there was 'more labor than hands to perform it,' and that the 'meanest labor in the nation afforded the workman sufficient to provide for himself and his family.'

"Not even Macaulay's eloquence and ingenuity can countervail these sturdy affirmations of Defoe, which place beyond dispute that there has not, since the earlier writer lived, been any such marked or general rise of money wages as the other imagined. Besides, money wages a century or two ago were very far from representing so accurately as at present the sum total of their recipient's resources. Among the proceedings, legal or other, which, with whatever motive instituted, have, together with

many beneficial results, had the baneful one of utterly divorcing the English laborer from the soil, the most efficacious have been inclosure bills, which did not come much into fashion until the middle of George II's reign.\* Previously, whoever wished to build himself a cottage, might, without much objection, squat himself down on one of the many tracts of neglected land which, scattered about on every side, then made up a full fourth of the whole area of the kingdom; while the ease with which rent-free dwellings were thus obtainable, necessarily lowered the rent of other dwellings of a similar class. Laborers, consequently, in rural districts had to pay little or nothing for lodgings, and no small portion of their board also was procurable on equally easy terms.

"The peasant's garden, cribbed probably, like the site of his cottage, from the waste, supplied him with roots and herbs; on the adjoining common he had grazing for a cow and a few sheep, as well as for pigs and poultry; some neighboring wood or heath furnished him with fuel for the gathering, and he was lucky if he lived too far from a meer or marsh to allow of his catching an occasional eel or mallard, as well as the ague. It may be that where he once fed a flock of geese, is now an orchard rich with apple blossoms; and that the fen in which he snared wild fowl, has long since been drained and divided into corn-fields and turnip-fields; that the moor where he cut turf among the furze bushes, is now a meadow bright with clover, and renowned for butter and cheese. But of whatever advantage such transformations may be to the country at large, to the poor countryman they have been of less than no advantage at all. His share of the gain resulting from them is a miserable set-off against his concomitant loss, for what he has gained is simply access to shops and markets, stocked more abundantly than before from the augmented produce of the improved land, while what he has lost is all that the same land would have yielded if left in a state of nature. It was by supplemental aids derived from land in that state that the Yorkshire hind, when earning no more than 5s. a week in money, was nevertheless enabled, as we are expressly told he was, to live much better than working-men in any of the manufacturing countries of Germany, France, or Italy. When this was the case in Yorkshire, where labor was cheapest, it is very certain that in Kent and Sussex, and in the southern counties generally, where agricultural wages were on an average twice as high as in the north, and were supplemented in the same manner, the condition of the laborers in husbandry cannot have been one which their successors have any reason to look back to with contempt."

The apparent discrepancies between Macaulay's conclusions and the statements of Defoe may, perhaps, be explained in part by an actual improvement in the condition of the working-classes having taken place between 1685, the year to which Mr. Macaulay's description refers, and 1704, the date at which was published the pamphlet from which Mr. Thornton has quoted.† Mr. Rogers, in the work heretofore mentioned, says that the mass of the people recovered to some extent during the

\* Mr. Thornton does not here bring in question the great inclosing movement of the sixteenth century. The later inclosures by act of Parliament are a different matter, though contributing largely to the same result, namely the monopoly of the soil by the aristocracy. Macaulay says that the number of inclosure acts passed since the accession of George II to the throne exceeds four thousand, and that the area inclosed under the authority thereby conferred exceeds, on a moderate calculation, ten thousand square miles. The inclosure of this area was doubtless a desirable thing in itself, but this might surely have been accomplished without taking it away from the people to annex it to the estates of the nobility.

† *Giving alms no charity.*



seventeenth century from the depression into which, from various causes, they had fallen during the sixteenth, and that they "had a golden age during the first half of the eighteenth." Whether they had attained a condition which warranted this description as early as 1704 may, indeed, be doubted; but that their circumstances were better than they had been at the close of the reign of Charles II is quite probable. The war with France which followed the accession of William III to the throne in 1688 occasioned a considerable falling off in external trade, the amount of shipping clearing outwards from English ports having declined from 285,800 tons in 1688 to 174,791 tons in 1696, while the value of merchandise exported fell in the same period from £4,086,089 to £2,729,520. This decline in commerce was, however, accompanied with increased activity in a number of domestic industries. This was the case in the manufacture of copper and brass, silk, and the finer descriptions of glass, which latter had up to that time been chiefly imported from France. A sword-blade company which had settled in Yorkshire, established a prosperous business, and so great was the improvement in the manufacture of men's hats, previously imported in large numbers from Normandy, that the English article soon excluded its foreign competitor, than which it was at once better and lower in price. These and other improvements in manufactures were largely promoted by the influx of French refugees which followed the revocation of the edict of Nantes in 1685. The intolerant bigotry of Louis XIV drove from his kingdom nearly half a million of his Protestant subjects,\* who were among the most industrious, enterprising, and intelligent of the population. Consisting largely of manufacturers and skilled artisans, they carried their experience, skill, and artistic taste, as well as a large amount of capital, to the several countries of Protestant Europe in which they found refuge. It is believed that not less than fifty thousand of them settled in England. Voltaire, in his *Age of Louis XIV*, states that a part of the suburbs of London (Spitalfields) was peopled entirely with French manufacturers of silk, while thousands of French refugees, engaged in other industries, established themselves in the suburbs of Soho and St. Giles. Others, he says, carried to England the art of making crystal in perfection, which for that same reason was about this same time lost in France. Anderson, in his *History of Commerce*, (Vol. II, page 569) estimates the amount of capital, in money and effects, brought into the country by these immigrants at an aggregate of three million pounds sterling, and says: "To the French refugees England owes the improvement of several of its manufactures of slight woolen stuffs, of silk, linen, paper, glass, and hats, (the last two since brought to perfection by us.) The silks called *à la mode* and lustrings were entirely owing to them; also brocades, satins, black and colored mantuas, black paduasoes, ducapes, watered tabbies, and black velvets; also watches, cutlery-ware, clocks, jacks, locks, surgeons' instruments, hardware, toys, &c."

The peace of Ryswick, negotiated in September, 1697, was quickly followed by evidences of increased prosperity. The improvements which had been made in manufactures, and the new industries introduced, now co-operated with a revived commerce to produce an era of increased industrial activity. In 1697 the merchandise shipped from English ports amounted to only £3,525,907. During the first three years of peace it averaged £6,709,881 per annum. The increased activity of internal traffic may be in part inferred from the great increase which occurred in the use of the mails. During the eight years of the war the revenue of

\* The number has been variously estimated at from three hundred thousand to one million.

the post-office amounted to only £67,222 per annum. Its annual revenue during the first four years of peace averaged £82,319. Among other causes of the improved condition of trade have been mentioned the recoinage of the silver, with the withdrawal of debased coin, the establishment of the Bank of England in 1694, the enlargement of the bounds of religious toleration, and the augmented confidence in the future which arose from a more definite settlement of the political constitution of the kingdom.

The reign of Anne, extending from 1702 to 1714, was distinguished for the successful military campaigns of the famous Duke of Marlborough. Out of the entire period, only two years were years of peace. It does not appear, however, that the activity of internal trade and industry was interrupted; and though foreign commerce may have languished for a time, it did not suffer as it had done during the preceding reign. It was more seriously crippled during the earlier years of the reign of George I, under whom England was successively involved in petty wars with various states which had sheltered the pretender to the British throne. There are evidences, however, that the country was in a prosperous condition. The taxes yielded increased revenues; money was abundant; the government seldom borrowed at a higher rate than 4 per cent., and at the close of George's reign in 1727 the market rate of interest was but 3 per cent. The abundance of capital did not fail to arouse the cupidity of the speculator, and it was during this period that the famous South-Sea bubble expanded and collapsed.

The following brief account of the condition of the country during the reign of George II (1727 to 1760) is given by John Wade in his history of the middle and working classes:

Of the thirty-three years of this king's government, only thirteen were years of war; the remainder of peace, prosperity, and great internal improvements. Shipping increased; agriculture, commerce, and the manufacturing arts flourished. Under numerous inclosure acts, the waste lands were reclaimed; new roads were opened and old ones improved; bridges were erected, and numerous rivers widened and deepened for facilitating internal communication; vast quantities of corn were annually exported. The balance of payments in return for the excess of exports in grain and other commodities kept up the circulation almost without the aid of a paper currency; commercial interest ran steadily at 3 per cent. The prices of the public securities rose above par, so that ministers were enabled to reduce the annuities, by offering the usual alternative to the creditors, of either the payment of the principal, or the acceptance of a lower rate of interest.

The activity of national industry and abundance of capital are evidenced by the extent of local improvements, especially in London and Edinburgh. In London no fewer than eight new parishes were erected between the Revolution and the end of the reign of George II. An act had passed in Queen Anne's reign for the building of fifty additional churches in the metropolis. The extension of commerce and manufactures caused a great addition to the population in the chief seats of industry and enterprise in the country—in Manchester, Birmingham, Liverpool, Bristol, Glasgow, Leeds, Sheffield, Frome. One source of the general prosperity was the growing importance and increasing temptations held out by the colonies of North America. Already the New World had become the land of refuge and of hope to the needy and adventurous both from England and the continental states. In one year, that of 1729, there emigrated to the single province of Pennsylvania no fewer than 6,208 persons, of whom, as in the existing stream of emigration, the great mass were Irish, forced into exile, as at present, by high rents and destitution.

In the following paragraph Mr. Wade mentions a few of the leading improvements in agricultural industry introduced during the first half of the eighteenth century:

In 1710 the winnowing-machine was introduced from Holland, and about the same time the thrashing-machine began to be used in the northern parts of the island. In 1732 the celebrated Jethro Tull commenced his experiments on his farm in Berkshire, but thirty years elapsed before they excited much practical atten-

tion and before the more valuable parts of his system began to be adopted by intelligent agriculturists. He introduced the drill-husbandry and recommended the substitution of labor and arrangement in the place of manure and fallow in the culture of land. A rotation of crops and the cultivation of turnips, clover, and potatoes in the field became more general. That agriculture was extending is shown by the course of legislation. More land was demanded for cultivation. In the belligerent reign of William III not a single act was passed for the inclosure of wastes or the draining of marshes. In the equally fighting reign of Anne there were only two inclosure-acts, but in that of George I, the number was twenty-six, and in the thirty-three years' reign of George II two hundred and twenty-six were passed.\*

The period under consideration witnessed the birth of a number of those inventions which, after successive improvements, were destined to effect a revolution in most of the industrial arts. The revival of Greek learning had brought to the knowledge of modern scholars certain ancient applications of the power of steam which, trifling as they were, contained the germs of those stupendous applications of the same force with which we are now familiar. During the sixteenth and seventeenth centuries the subject had occupied the minds of a number of mechanicians, and in 1663 the Marquis of Worcester, in his "Century of Inventions," announced that he had invented and constructed a steam-machine, by means of which he could raise a column of water to the height of forty feet. This was improved upon by Savery a few years later, and in 1690 the piston, in a rude form, was devised by Dr. Dennis Papin. In 1705 Thomas Newcomen patented an engine which gradually came into very general use for pumping water out of mines, and which, after successive improvements by Potter, Beighton, Smeaton, and others, formed the basis for the famous inventions of James Watt, the first of which was patented on January 5, 1769.

In the year 1738 Mr. John Kay, a native of Bury, in Lancashire, then residing at Colchester, one of the seats of the woolen manufacture, suggested a new mode of throwing the shuttle, by the use of which a weaver was enabled to turn out nearly twice as much cloth as he could before. In the same year a patent was taken out by Lewis Paul for spinning cotton or wool by the aid of rollers; and although his machine was unsuccessful in practice, it contained the principle subsequently developed by Arkwright in the spinning-frame, which he patented in 1769, within a few months of the time when Watt obtained his patent for the engine, in conjunction with which the new devices for spinning were soon to work such wonders.†

These and other inventions of the same period did not begin to produce their great effects upon manufacturing industry until near the close of the century; but they are evidences of the intellectual energy that marked the period now under consideration, and of an industrial activity which taxed to the utmost the modes of production then in use, thus stimulating inventive genius to those efforts that were soon to achieve such magnificent triumphs.

The growth of the cotton-manufacture between 1697 and 1764 is illustrated by the following table, showing the quantity of cotton-wool im-

\* That the large number of inclosure-acts passed during these two reigns is an evidence of the flourishing condition of the country at the time may readily be admitted; but we need not, therefore, infer that the permanence of this condition was promoted by the measures in question. To bring the common lands under cultivation was obviously a means of increasing the aggregate resources of the country. To annex them to the great estates of the nobility was *not* the way to make their cultivation most conducive to the welfare of the masses of the working people.

† The spinning-jenny was invented by Hargreaves about 1764, and patented in 1770. In 1775 Samuel Crompton invented a machine, since known as the mule, which combined the actions of Arkwright's frame and Hargreaves's jenny, and in 1785 the power-loom was invented by Cartright.

ported to, and the value of cotton goods exported from, Great Britain at different times between the years just mentioned :

Years.	Quantity of cotton-wool imported.	Value of cotton goods exported.
	<i>Pounds.</i>	
1697.....	1, 976, 359	25, 915
1761.....	1, 985, 862	23, 253
1710.....	715, 008	5, 698
1720.....	1, 978, 805	16, 300
1730.....	1, 545, 472	13, 524
1741.....	1, 645, 031	90, 709
1751.....	2, 976, 610	45, 966
1764.....	3, 870, 392	200, 354

It will be seen from these figures that the exports of cotton goods in 1741 were more than three times as great as they were in 1697, and that in 1764 they were nearly five times as great as in 1741.\*

Defoe, speaking of Manchester, in his "Tour through the Whole Island of Great Britain," published in 1727, says :

Here, as at Liverpool, and also at Frome, in Somersetshire, the town is extending in a very surprising manner, being almost double what it was a few years ago. The grand manufacture which has so much raised this town is that of cotton in all its varieties, which, like all our other manufactures, is very much increased within these thirty or forty years.

An article in the Daily Advertiser, of September 5, 1739, and which was also copied into the Gentleman's Magazine, says :

The manufacture of cotton, mixed and plain, is arrived at so great perfection within these twenty years, that we not only make enough for our own consumption, but supply our colonies and many of the nations of Europe. The benefits arising from this branch are such as to enable the manufacturers of Manchester alone to lay out about £30,000 a year, for many years past, on additional buildings. 'Tis computed that two thousand new houses have been built in that industrious town within these twenty years.

During the same period considerable improvement took place in the manufacture of iron, and before the middle of the century Lord Dudley's plan of smelting iron with coal, instead of charcoal, was successfully carried on at various points. The increase of production thus effected led to the use of iron for purposes to which it had never before been applied, and thus stimulated improvement in other directions. The hardware manufacture steadily grew in importance, and Birmingham and Sheffield, the chief centers of this industry, rapidly increased in wealth and population. The various operations connected with this industry were carried on chiefly by hand, but machinery was used in the rolling of metal sheets, the stamping of dies, and other processes requiring a greater power than human muscle could apply. In the

\*The growth of the woollen manufacture is indicated by the number of pieces of broadcloth milled at the various fulling-mills in the West-Riding of Yorkshire at different dates from 1727 to 1795, inclusive, which was as follows :

Dates.	Number of pieces.	Dates.	Number of pieces.
1727.....	28, 990	1765.....	54, 660
1735.....	31, 744½	1775.....	95, 878
1745.....	50, 453	1785.....	157, 275
1755.....	57, 125	1795.....	250, 993

making of nails, an industry which was extensively carried on in the neighborhood of Birmingham, it was not uncommon to employ the labor of females, as appears from the following passage in Hutton's history of that town :

When I first approached Birmingham, in 1741, I was surprised at the prodigious number of blacksmiths' shops upon the road, and could not conceive how the country, though populous, could support so many people of the same occupation. In some of these shops I observed one or more females, stripped of their upper garments, and not overcharged with their lower, wielding the hammer with all the grace of their sex. The beauties of their face were rather eclipsed by the smut of the anvil. Struck with the novelty, I inquired whether the ladies of this country shoed horses, but was answered with a smile, "They are nailers."

It is evident that the growth of these manufactures and of many others which either came into existence, or were greatly improved, during the same period, must have reacted powerfully upon agriculture by furnishing an ample and ready market for its various products. The advantages arising from this source appear to have been enjoyed for many years by the farmers, and, probably also, to a considerable extent, by their laborers, before the landlords, by a general enhancement of rents, asserted their claim to the increased pecuniary returns obtained from their lands. A neighbor of Arthur Young informed that eminent agricultural writer, that between 1770 and 1780 an aged relative of his had frequently expressed surprise at the rise of rents that was then taking place, for during the long period through which his experience extended the renewal of leases had been commonly regarded as a matter of course ; and father, son, and grandson, in turn had occupied the same farm without such a thing as an increase of the rent entering into the thoughts of either landlord or tenant.

To this fact, in conjunction with the activity of the various industries, the prosperity of the working-classes, during the period in question, was doubtless mainly due ; while the raising of rents, the extension of land monopoly by the inclosure acts, and the disturbance of industry incident to a period of transition in the methods of production co-operated with war and commercial revulsions to produce that deterioration in their circumstances which occurred in the latter part of the century. Of the improvement in their condition between the revolution of 1688 and the accession of George III in 1760, an indication is afforded by the fact that at the earlier date the use of wheaten bread by the common people was mainly confined to a small proportion of the inhabitants of the southern counties; whereas, at the later, it was used by about five-eighths of the population of England. That the fare of the laboring people was by no means scanty may reasonably be inferred from the treatment of the inmates of work-houses. The following account taken from a parliamentary return, shows the expense of maintaining the work-house at Saint Giles's in the Fields for they ear ended April 18, 1727 :

	s	s.	d.
For baking.....	2	13	4
For milk.....	59	1	3
For butcher's meat.....	180	0	6
For cheese.....	81	7	2
For bread and flour.....	321	6	6
For oat-meal.....	26	3	9
For peas.....	0	10	0
For beer.....	161	12	6
For shop-goods.....	61	7	5½
For herbs.....	8	9	6½
For mackerel.....	1	6	4

903 16 3½

Considering the comparatively low price of meat at the time in question,\* the amount obtained for the expenditure above given must have been quite liberal, while the supply of beer, then worth about 1½d. per gallon, was large enough to attest the generosity of the managers of the establishment, however unfavorably it may impress us in regard to their judgment.

The bill of fare of the inmates of the work-house at Bedford about the same time was as follows :

Day of week.	Breakfast.	Dinner.	Supper.
Sunday.....	Bread and cheese .....	Boiled beef and suet-pudding.....	Bread and cheese.
Monday.....	Broth.....	Cold meat left on Sunday.....	Do.
Tuesday.....	Bread and cheese.....	Boiled beef and a little mutton and suet pudding.	Do.
Wednesday ..	The same as Monday..	The same as Monday.....	Do.
Thursday .....	The same as Tuesday..	The same as Tuesday.....	Do.
Friday .....	The same as Monday..	The same as Monday.....	Do.
Saturday.....	Bread and cheese.....	Hasty-pudding, or milk-porridge..	Broth, or bread and cheese.

The writer who furnishes this information further says :

Their bread is wheat dressed down and made into large household loaves by a woman in the house. Their drink is beer, turned in from the public brew-house at three half-pence per gallon. The overseers do sometimes put a cow upon the common for them ; and that nothing may be wasted or lost, they have a pig or two brought in to live upon their wash and dregs, and fragments ; which when well grown, is fed and killed for the house. They have also a little garden for herbs, onions, &c.

Mr. Wade states that from 1720 to 1760, there was no material variation either in the prices of provisions or the rates of wages. "Through-out the whole of that period," says he, "wheat kept steadily at from 32s. to 35s. the quarter, which was lower than it had been about the time of the revolution. Wages of husbandmen rose a little toward the close of the reign of George II, but not those of artificers. According to Mr. Barton's tables wages in husbandry were in 1725, per week, 5s. 4d. ; in 1751, 6s. ; in 1770, 7s. 4d." Eden, however, writing near the close of the eighteenth century, expresses the opinion that in most parts of England, except in the vicinity of the large towns, the price of labor had nearly doubled within the preceding sixty years.

The following statement shows the expense of maintaining the family of an agricultural laborer in 1762, the second year of the reign of George III :

	Per week.	
	s.	d.
Bread, flour, oat-meal .....	2	6
Roots, greens, beans, peas, fruit.....	0	5
Firing, 6d., candles, 3d., soap, 2½d.....	0	11½
Milk, 1½d., butter, 1½d., cheese, 5d.....	0	8½
Flesh, 6d., rent, 6d., pins, worsted, thread, &c., 1d.....	1	1
Clothes, repairs, bedding, shoes .....	1	0
Salt, beer, exotics, vinegar, spices.....	0	8½
Total per week.....	7	4½

As these are actual expenses, they indicate the mode as well as the cost of living at the time in question.

\* According to a table published further on, the average price of mutton from 1706 to 1730, was only 1s. 8d. per stone of 8 pounds, or 2½d per pound. In 1740 the same price was paid for beef by the victualing office, and four years later the same meat was purchased for 1½d per pound.

The following statement shows the contract-rates of wages at Greenwich Hospital in 1760:

	s.	d.
Carpenter, per day .....	2	6
Bricklayer, per day .....	2	6
Mason, per day .....	2	8
Plumber, per day .....	3	6

The contract-rate of wages for artificers had undergone no change from 1729, and continued without variation till about 1795, when they suddenly rose from 2s. 6d. to 5s. per day.

The contract-prices for provisions and clothing in 1760 at the same hospital were as follows:

	£.	s.	d.		£.	s.	d.
Flesh, per cwt .....	1	11	6	Beer, per barrel .....	0	5	7½
Bread, for 13½ ounces .....	0	0	1	Candles, per dozen pounds .....	0	6	6
Butter, per pound .....	0	0	5½	Shoes, per pair .....	0	4	0
Cheese, per pound .....	0	0	3½	Coals, per chaldron .....	1	12	8
Pease, per bushel .....	0	3	6	Stockings, per pair .....	0	1	8
Oatmeal, per bushel .....	0	4	0	Hats, each .....	0	2	0
Salt, per bushel .....	0	4	0	Suit of bedding .....	0	4	4½
Malt, per quarter .....	1	4	9	Coats, each .....	1	1	0
Hops, per cwt .....	4	13	4				

Mr. Howlett, in a pamphlet on "the insufficiency of the causes to which the increase of our poor and of the poor's rates has been ascribed," published in 1788, maintained that, for a considerable period prior to the time he wrote, the rates of wages had not kept pace with the rise in the prices of provisions. An expensive war had brought an additional debt of more than one hundred millions sterling, and the increased taxes thus occasioned had fallen in part on articles which were necessities of life, even among the poorest of the people, such as soap, leather, candles, &c. Within twelve years the price of these articles had increased one-fifth. Wheat, in the mean time, had cost the poor man nearly 6s. a bushel; butter and cheese had risen three half-pence a pound, and meat a penny. The general increase in the price of these commodities he reckons at one-fifth, or 20 per cent., and asks, "What advantage have they (the working-classes) had to enable them to bear this augmented burden? What advance within the last ten or twelve years has been made in their wages? Very little indeed; in their daily labor nothing at all, either in husbandry or manufactures. In some branches of the latter, by the iniquitous, oppressive practices of those who have the direction of them, they are at this moment considerably lower. The only advantage they enjoy more than they did a few years ago is in piece-work." He thinks, however, that while this "augments the wages of the workmen it shortens the duration of their lives, and of their capacity for labor." Extending his review to a somewhat longer period, Mr. Howlett says that wheat, "which, between the years 1746 and 1765, was only 32s. a quarter, was almost from that time to the year 1776, above 45s." To counterbalance this, "the rise in the price of labor was very little, if anything, more than twopence on the shilling, except only the money earned by piece-work, which, ten or twelve years ago, was not nearly so general as at present."

To show the very moderate rise of wages in the south of England, during the fifty years from 1737 to 1787, he gives the following statement:

<i>Agriculture:</i>	Wages per diem	
	1737.	1787.
	d.	d.
Laborers out of doors, in the country .....	10	12
Threshers .....	9	12
Laborers out of doors, near great towns .....	16	16

*Cloth-manufacturers :*

Scribblers.....	14	15
Shearmen.....	15	18
Women spinners.....	6	7

The wages of weavers during the same period, he says, had been raised "about 2d. a day in the coarse trade and nothing at all in the superfine."

Below are presented a number of tables, extracts from old accounts, official orders, &c., illustrating the rates of wages and the cost of living during the seventeenth and eighteenth centuries :

## WAGES AND PRICES FROM 1596 TO 1796.

TABLE I.—*Showing the wages of servants, laborers, and artificers in the county of Chester as fixed by the justices of the peace of the said county, at the said city of Chester, in the thirty-eighth year of the reign of Queen Elizabeth, (A. D. 1596.)*

Occupation.	Wages by the year.		Wages by the day.
	With meat and drink.	Without meat and drink.	With meat and drink.
	<i>£. s. d.</i>	<i>£. s. d.</i>	<i>£. s. d.</i>
Smith.....	1 11 8	5 0 0	0 0 2
Wheelwright.....	2 0 0	5 10 0	2 4
Plowwright.....	1 10 0	5 0 0	2
Millwright.....	1 3 4	5 10 0	3
Master carpenter.....	2 13 4	5 13 4	4
Servant carpenter.....	1 0 0	3 10 0	1
Joiner.....	1 10 0	4 0 0	2
Rough-mason.....	1 6 8	5 0 0	2 4
Plasterer.....	1 0 0	5 0 0	2
Sawyer.....	1 8 0	4 10 0	2
Lime-maker.....	1 3 0	4 6 8	2
Brick-layer.....	1 0 0	4 0 0	2 4
Brick-man.....	1 6 0	4 10 0	2
Tiler.....	1 5 0	3 13 4	2
Slater.....	1 6 0	4 0 0	2 4
Tile-maker.....	1 10 0	4 0 0	2
Linen-weaver.....	1 0 0	4 0 0	1
Turner.....	1 6 0	3 0 0	1
Woolen-weaver.....	1 8 0	3 13 4	1
Cooper.....	1 10 0	4 0 0	2
Miller.....	1 10 0	4 0 0	2
Faller.....	1 6 0	3 13 4	1 4
Walker.....	1 3 4	4 0 0	1 4
Thatcher.....	1 0 0	4 0 0	1
Shingler.....	1 10 0	4 0 0	2
Shearman.....	1 0 0	3 13 4	1 4
Dyer.....	1 6 8	3 13 4	1 4
Hosiery.....	1 3 0	3 10 0	1
Shoemaker.....	1 10 0	4 0 0	2
Tanners.....	1 6 0	4 0 0	1
Pewterers.....	1 0 0	3 13 4	2 4
Bakers.....	1 6 0	3 10 0	1
Brewers.....	1 0 0	3 10 0	1 4
Glovers.....	1 6 8	3 16 0	1
Cutlers.....	1 7 0	4 10 0	1 4
Saddlers.....	1 5 0	4 0 0	1 4
Spurriers.....	1 5 0	4 0 0	1 4
Cap-makers.....	1 0 0	3 10 0	2
Hat-maker.....	1 10 0	4 10 0	2
Bowiers, (bow-makers).....	1 8 0	4 0 0	2
Fletchers.....	1 0 0	3 10 0	2
Arrow-head makers.....	15 0	3 10 0	1
Butchers.....	1 6 8	3 10 0	1
Cooks.....	1 0 0	3 5 0	1
Balliffs of husbandry.....	2 0 0	4 0 0	3
Mowers of grass.....			4
Taskers.....			4
Reapers.....			2
Mowers of corn.....			4
Servants of the best sort.....	1 0 0	3 10 0	
Servants of the second sort.....	10 0	2 10 0	
Servants of the third sort.....	8 0	1 16 0	



TABLE II.—*Showing the wages of servants, laborers, and artificers, as fixed by the justices of the peace at Okeham, in the county of Rutland, on the 28th day of April, 1610.*

	Wages per annum.		
	£.	s.	d.
A bailiff of husbandry, having charge of a plow-land, at least.....	2	12	0
A man-servant for husbandry of the best sort, who can sow, mow, thresh, make a rick, thatch and hedge the same, and kill a hog, sheep, or calf....	2	10	0
A common servant of husbandry, who can mow, and cannot expertly make a rick and thatch it, nor kill and dress a hog, sheep, or calf.....	2	0	0
A servant who can drive, plow, pitch, cart, and thresh, but cannot expertly sow and mow.....	1	9	0
A boy under sixteen years of age.....	1	0	0

#### WAGES OF WOMEN-SERVANTS.

A chief woman-servant, who can cook, bake, brew, make malt, and oversee other servants.....	1	6	8
A second woman-servant of the best sort, who cannot dress meat nor make malt, but can brew, &c.....	1	3	4
A "mean or simple woman-servant," who can do only out-work and drudging.....	0	16	0
A girl under sixteen years of age.....	0	14	0

#### WAGES OF MILLERS.

A chief miller, who can "expertly beat, lay, grind, and govern his mill"..	2	6	0
A common miller, who cannot, &c.....	1	11	8

#### WAGES OF SHEPHERDS.

A chief shepherd, who is skillful in the ordinary of his cattle, winter and summer.....	1	10	0
A common shepherd.....	1	5	0

#### WAGES OF MOWERS AND HARVEST-FOLK.

Occupations.	With meat.	Without meat.
	d.	d.
A mower by the day.....	5	10
A man reaper.....	4	8
A woman reaper.....	3	6
A man hay-maker.....	4	8
A woman hay-maker.....	2	5
A follower of scythes.....	3	6
A raker of barley and peas.....	3	6
A hedger.....	4	8
A ditcher.....	4	8
Every other laborer not before set down, (harvest excepted,) shall have from Easter to Michaelmas.....	3	7
And afterward, every such laborer shall have from Michaelmas to Easter.....	2	6

## WAGES OF ARTIFICERS AND THEIR APPRENTICES.

Occupations.	From Easter to Michaelmas.		From Michaelmas to Easter.	
	With meat.	Without meat.	With meat.	Without meat.
Chief joiner, per day.....	d. 6	d. 12	d. 4	d. 8
Joiner's apprentice, per day.....	4	8	3	6
Master sawyer, per day.....	6	12	4	8
Plow-wright, per day.....	5	10	4	8
Thatcher, per day.....	5	9	4	8
Hurdle-maker, per day.....	5	9	4	8
Horse-collar-maker, per day.....	6	10	4	8
Master mason, per day.....	8	12	6	10
Rough mason, per day.....	5	10	4	8
Master carpenter, per day.....	8	14	6	14
Expert carpenter, per day.....	5	10	4	8
Carpenter's apprentice, per day.....	3	7	2	6
Bricklayer, per day.....	5	9	4	8
Bricklayer's apprentice, per day.....	3	7	2	6
Tiler or slater, per day.....	5	10	4	8
Tiler or slater's apprentice, per day.....	3	7	2	6
Turner, per day.....	6	12	6	12
Gardener, per day.....	6	12	-----	-----
Tailor, per day.....	4	8	4	8

It appears, by the high constable's catalogues of persons hired under the statutes from 1626 to 1634, that the rate of wages for servants above given was then complied with.

TABLE III.—*Showing the wages of artificers, laborers, and servants as fixed by the justices of the peace at Chelmsford, in the county of Essex, on the 8th of April, 1651, "according to the true meaning of a statute made in the twenty-ninth year of the reign of Queen Elizabeth, having a special regard and consideration to the prices at this time of all kinds of victuals and apparel, both linen and woolen, and all other necessary charges wherewith artificers, laborers, and servants have been more grievously charged than in times past."*

Occupations.	By the day from March to September.		By the day from September to March.		By the whole year.	
	With board.	Without board.	With board.	Without board.	Wages.	Livery.
A master mason.....	d. 12	d. 16	d. 10	d. 16	£ s. d. 4 0 0	£ s. d. 10 0 0
A master rough mason.....	10	17	8	14	3 0 0	10 0 0
A master mason's servants and apprentices, above the age of fourteen and under eighteen.....	4	10	3	7	1 10 0	8 0 0
A master carpenter.....	12	18	10	16	4 0 0	10 0 0
A master carpenter, journeymen, and servants, above eighteen and under twenty-four years.....	8	14	6	12	2 10 0	8 0 0
A master carpenter, servants and apprentices, above fourteen and under twenty-four years.....	6	12	6	10	1 4 0	8 0 0
A master sawyer.....	10	16	8	14	4 10 0	10 0 0
A master sawyer's laborer.....	8	8	8	12	4 0 0	8 0 0
Palers.....	8	8	8	12	4 0 0	10 0 0
Rivers of pale and clasp-board and laths.....	10	18	8	16	4 0 0	10 0 0
A millwright.....	12	18	10	16	0 0 0	0 0 0
A plow-wright and cartwright.....	10	18	8	16	0 0 0	0 0 0
Coopers.....	10	16	6	14	0 0 0	0 0 0
A master shipwright.....	16	24	12	16	0 0 0	0 0 0
A hewer or common shipwright.....	10	18	8	14	0 0 0	0 0 0

TABLE III.—Showing the wages of artificers, laborers, and servants, &amp;c.—Continued.

Occupations.	By the day from March to September.		By the day from September to March.		By the whole year.	
	With board.	Without board.	With board.	Without board.	Wages.	Livery.
	d.	d.	d.	d.	£ s. d.	£ s. d.
An able clenchor .....	10	18	8	14	0 0 0	0 0 0
An able holder .....	8	14	7	12	0 0 0	0 0 0
A master calker .....	14	24	10	16	0 0 0	0 0 0
A calker, laboring by tide .....	10	18	8	14	0 0 0	0 0 0
A common calker .....	9	16	8	14	0 0 0	0 0 0
A master joiner or carver .....	10	18	8	16	4 0 0	10 0 0
A master joiner or carver's servants and apprentices, above eighteen and under twenty-four years .....	8	14	6	12	3 10 0	10 0 0
A master joiner or carver's servants and apprentices, above fourteen and under twenty-four years .....	6	9	5	8	1 13 4	6 0 0
A master bricklayer, tiler, plasterer, and shingler .....	10	18	8	16	4 0 0	10 0 0
Second bricklayers, tilers, and slaters, above sixteen and under twenty-four years .....	8	16	6	14	2 0 0	10 0 0
Their servants and apprentices, above twelve and under twenty-four years .....	6	10	5	8	0 0 0	0 0 0
Brick and tile makers, burners of wood, ashes, and lime .....	8	16	6	12	3 0 0	10 0 0
Their servants and laborers .....	6	11	5	10	2 10 0	10 0 0
A plumber and glazier .....	10	16	8	14	3 5 0	10 0 0
Their servants and apprentices, above fourteen and under twenty-four years .....	6	10	5	8	1 10 4	6 4 0
Master thatchers .....	10	16	8	14	3 0 0	10 0 0
Their servants .....	8	13	6	12	2 10 0	10 0 0
Woodcutters, ditchers, hedgers, thrashers, and all other common laborers, (the time of harvest excepted) .....	8	14	6	12	3 5 0	10 0 0
Loaders of corn and meal .....	0	0	0	0	4 0 0	10 0 0
Knackers, collar-makers, and armorers .....	9	18	8	14	6 0 0	0 0 0
A bailiff of husbandry .....	0	0	0	0	5 0 0	10 0 0
A chief hind, best plowman, carter, shepherd, or neatherd .....	0	0	0	0	4 10 0	10 0 0
The second hind, carter, or servant in husbandry .....	0	0	0	0	3 10 0	10 0 0
Apprentice at husbandry, with board and clothes .....	0	0	0	0	0 0 0	0 0 0
The best woman-servant, being a cook able to take charge of a household .....	0	0	0	0	2 10 0	0 0 0
The second woman-servant .....	0	0	0	0	2 0 0	0 0 0
A dairy-maid or wash-maid .....	0	0	0	0	2 5 0	0 0 0
A chamber-maid .....	0	0	0	0	2 10 0	0 0 0
Gardeners .....	8	16	7	12	3 0 0	10 0 0
Haymakers, men .....	8	12	0	0	0 0 0	0 0 0
women .....	5	10	0	0	0 0 0	0 0 0
Weeders of corn .....	4	9	0	0	0 0 0	0 0 0
Mowers of corn and grass .....	10	18	0	0	0 0 0	0 0 0
A fallower .....	6	15	0	0	0 0 0	0 0 0
Reapers, men .....	12	22	0	0	0 0 0	0 0 0
women .....	8	14	0	0	0 0 0	0 0 0
Best journeyman clothiers .....	0	0	0	0	3 10 0	0 0 0
Best journeyman weavers in fine cloths .....	0	0	0	0	3 0 0	10 0 0
Second journeyman weaver and clothier .....	0	0	0	0	1 10 0	8 0 0
A journeyman wool-comber, above the age of twenty-four .....	0	0	0	0	3 0 0	10 0 0
Wool-combers doing their work by task, for every warp .....	6	0	0	0	0 0 0	0 0 0
A journeyman tucker, fuller, shearman, and dyer .....	0	0	0	0	2 10 0	10 0 0
Tailors and hosiers .....	8	14	6	12	2 10 0	10 0 0
Shoemakers, cutlers, smiths, farriers, saddlers, spurriers, tanners, and coopers .....	0	0	0	0	2 10 0	10 0 0
Millers, bakers, brewers, butchers, and cooks .....	0	0	0	0	2 10 0	10 0 0
The second sort of said artificers .....	0	0	0	0	2 10 0	8 0 0

\* Weavers doing their work at home were left to make their own agreements with the clothier.

#### WAGES OF ARTIFICERS AND LABORERS, BY TASK, OR IN GREAT, WITHOUT MEAT AND DRINK.

	£	s.	d.
The mowing of an acre of grass, after land-measure .....	0	1	8
The well-making, clean-raking, and cocking of an acre of grass ready to carry .....	0	2	0
The reaping, binding, cocking or shocking, of an acre of wheat, rye, or mixtlyn* .....	0	3	4
The reaping, binding, and shocking of an acre of barley .....	0	2	6
The reaping, binding, and shocking of an acre of oats .....	0	2	6

\* A mixture of wheat and rye.

The reaping, binding, and shocking of an acre of beans.....	0	3	6
The "making" of an acre of peas, vetches, and tares.....	0	1	9
The mowing of an acre of barley or oats.....	0	1	2
The follower, making bands, raking and laying the same per acre.....	0	1	0
Thrashing and winnowing wheat or rye, per quarter.....	0	1	10
Thrashing and winnowing barley or oats, per quarter.....	0	0	10
Thrashing and winnowing beans, peas, and tares, per quarter.....	0	0	10
Sawing plank, the hundred, (six score).....	0	2	6
Sawing boards, the hundred.....	0	2	6
Slitting work, the hundred.....	0	2	6
Riving lath, the hundred.....	0	0	4
Riving pales, the hundred.....	0	1	0
Riving clapboards, the hundred.....	0	4	0
The making of a plow, all new with meat and drink.....	0	1	6
The bodying of a plow, with meat and drink.....	0	0	10
The heading or bodying of a plow, with the handle, with meat and drink..	0	1	0
The making of a pair of cart-wheels, without meat and drink.....	0	8	0
The hewing of all the stuff of a body of a cart, without meat and drink....	0	1	8
The making of the body of a cart, without meat and drink.....	0	3	6
The hewing of every gang of fellows.....	0	1	4
The setting on of a fellow, without meat and drink.....	0	0	8
The hewing and riving of every gang of spoke-timber, the gang containing 25.....	0	1	0
Brick making and burning, straw and all other necessities being provided per thousand, (without meat and drink).....	0	2	6
The striking, drying, and setting on pile, every thousand tile, without meat and drink.....	0	0	10
The waiting and nealing of every thousand tile, without meat and drink...	0	1	0

TABLE IV.—*Showing the wages of artificers, laborers, and servants as fixed by the justices of the peace of the county of Warwick, on Tuesday next after the close of Easter, 1684, "according to the laws and statutes of the realm in such case made and provided, having a special regard and consideration to the prices at this time of victuals and apparel, and all other circumstances necessary to be considered."*

Occupations.	By the day.	
	With meat and drink.	Without.
	<i>s. d.</i>	<i>s. d.</i>
A master mason.....	0 6	1 4
A master brick-mason.....	0 6	1 0
Their servants and apprentices, above the age of eighteen years.....	0 4	0 8
Master carpenters.....	0 6	1 0
Their servants and journeymen, above the age of eighteen years.....	0 6	1 0
Their servants and apprentices.....	0 4	0 8
Plow-wrights and cart-wrights.....	0 6	1 0
Master brick-layers.....	0 6	1 0
Tilers, plasterers, and shinglers.....	0 6	1 0
Master plasterers.....	0 4	0 8
Their servants and apprentices, above the age of twelve years.....	0 3	0 6
Master thatchers.....	0 6	1 0
Their servants.....	0 4	0 8
Fellers of wood, thrashers, and all other common laborers, the time of harvest excepted.....	0 4	0 8
Hay-makers, men.....	0 4	0 8
Hay-makers, women.....	0 2	0 4
Weeders of corn.....	0 2	0 4
Mowers of corn and grass.....	0 6	1 0
A raker in corn harvest.....	0 3	0 6
Reapers, men.....	0 6	1 0
Reapers, women.....	0 4	0 8

From the middle of September to the middle of March, the wages was to be one penny a day less than the above rates.

## WAGES BY THE YEAR.

	£	s.	d.
A bailiff of husbandry.....	4	0	0
Chief hind, best plowman and carter.....	5	15	0
Shepherds.....	5	0	0
Inferior servant-man.....	2	10	0
A woman-servant, able to manage a household.....	1	15	0
A second woman-servant.....	1	6	8
A dairy-maid or wash-maid.....	1	10	0

TABLE V.—*Showing the wages of artificers, laborers, and servants in the county of Lancaster, as fixed by the justices of the peace at Manchester on the 22d of May, 1725, "upon conference with discreet and grave men of the said county respecting the plenty of the time and other necessary circumstances."*

## WAGES BY THE YEAR.

	£	s.	d.
A bailiff of husbandry or chief hind, not above.....	6	00	00
Experienced millers, without meat and drink, not above.....	10	00	00
Experienced millers, with meat and drink, not above.....	5	00	00
Chief servants in husbandry, that can sow or mow and do other husbandry well, not above.....	5	00	00
Common servants in husbandry, twenty-four years of age and upward, not above.....	4	00	00
Men-servants, from twenty to twenty-four years of age, not above.....	3	10	00
Men-servants, from sixteen to twenty years of age, not above.....	2	10	00
Best women-servants, that can cook or take charge of a household, not above.....	2	10	00
Chamber-maids, dairy-maids, and wash-maids, or other ordinary servants, not above.....	2	00	00
Women-servants under the age of sixteen, not above.....	1	10	00

## WAGES BY THE DAY.

Occupations.	With meat and drink.	Without.
	£ s. d.	£ s. d.
Best farm-laborers, from the middle of March to the middle of September, not above.....	0 0 6	0 1 0
Ordinary farm-laborers, from the middle of March to the middle of September, not above.....	0 0 5	0 0 10
Best farm-laborers, from the middle of September to the middle of March, not above.....	0 0 5	0 0 10
Ordinary farm-laborers, from the middle of September to the middle of March, not above.....	0 0 4	0 0 9
Hay-makers, men, not above.....	0 0 6	0 0 10
Hay-makers, women, not above.....	0 0 3	0 0 7
Mowers of hay, not above.....	0 0 9	0 1 3
Reapers, men, not above.....	0 0 6	0 1 0
Reapers, women, not above.....	0 0 6	0 0 10
Hedgers, ditchers, palers, thrashers, &c., not above.....	0 0 6	0 0 10
Masons, carpenters, joiners, plumbers, tilers, slaters, coopers, turners, master workmen, not above.....		0 1 2
Masons, carpenters, joiners, plumbers, tilers, slaters, coopers, turners, who are not master workmen, not above.....	0 0 6	0 1 0
Brick-layers, plasterers, white-limers, not above.....	0 0 6	0 1 0
Master brick-layer who has others working under his direction, not above.....		0 1 2
A pair of sawyers.....	0 1 0	0 2 0
Master tailors.....	0 0 6	0 1 0
Their journeymen and apprentices.....	0 0 5	0 0 10

## WORK BY TASK.

	£	s.	d.
Threshing, winnowing, or fanning a quarter of oats.....	0	1	0
Threshing, winnowing, or fanning a quarter of barley, beans, and pease.....	0	1	6
Threshing, winnowing, or fanning a quarter of wheat and rye.....	0	2	0
For hewing a gang of falloes.....	0	1	0
For making a plow.....	0	2	0
For making brick, including all labor, per thousand, (six score to the hundred).....	0	3	0
Miners in a standing delf, for 24 baskets, (one ton).....	0	1	0
Miners in a sitting delf, for 24 baskets, (one ton).....	0	1	3
Pavers, for every square yard, (the foundation being prepared and the materials on the ground).....	0	0	1

The order of the justices provides that the above rates shall not be exceeded in any part of the county, but suggests that as the county is eighty miles long, the work-people in the northern portion of it ought not to demand so much, but should "be content with what the custom of the country hath usually been." The mayor or chief officer of every corporate town is called upon to have the order publicly proclaimed, and the sheriff of the county is to cause it to be proclaimed in every other market-town within the county. After proclamation, publicly and solemnly made on the market-day "at the height of the market," a legible copy of the order is to be posted in some open public place in each of the said market-towns, and "the wages, rates, and allowances" therein established are to remain in force until "an alteration be made, and such alteration afterwards proclaimed." In connection with the order, the justices publish the "denunciations, penalties, punishments, and forfeitures which the statutes appoint to be inflicted impartially upon such as oppose or transgress what is ordered." These are as follows:

1st. As to artificers, workmen, and laborers, that conspire together, concerning their work or wages, every one of them so conspiring shall forfeit, for the first offense, ten pounds to the King, and if he does not pay within six days after conviction by witness, confession, or otherwise, shall suffer twenty days' imprisonment, and during that time shall have no sustenance but bread and water; for the second offense, he shall forfeit twenty pounds, and that not paid within six days, as aforesaid, shall suffer the the pillory; and for the third offense, shall forfeit forty pounds, and that not paid within the said time, shall again suffer the pillory, lose one of his ears, and be forever after taken as a man infamous, and not to be credited. 2 and 3 Edw. VI, chap. 15.

2d. An artificer or laborer who undertakes a piece of work by the task may not leave the same unfinished, unless for notpaying the wages or hire agreed on (or to do the King service,) without license of the owner of the work, on pain of imprisonment a month without bail, and five pounds forfeited to the owner of the work, besides his cost and damages, to be recovered by law.

3d. That master and servant may know that no servant that hath been in service before ought to be retained without showing a testimonial that he or she is legally licensed to depart from his or her last service, and at liberty to serve elsewhere, such testimonial to be registered with the minister of the parish whence the servant departs, and subscribed by the chief officer or constable, and two honest householders in the town. The master or mistress retaining a servant without showing such a testimonial forfeits five pounds; the person wanting such a testimonial shall suffer imprisonment till he procure it; and if he do not produce one within twenty-one days after his imprisonment, or if he show a forged one, to be whipped as a vagabond.

4th. No person shall put away his servant, nor any leave his service, before the end of his term, and none to be put away or depart at the end of the term without a quarter's warning before the end of the said term, unless for causes allowed by one or more justices of the peace. Such as put away a servant without cause so allowed before the end of his term forfeits 40s.; and the servant refusing to serve out his time or departing without cause so allowed shall be committed without bail till they become bound to serve according to their retainer.

5th. The person that gives more wages than is limited and appointed by the justices shall forfeit five pounds and be imprisoned ten days; and the servant retained that takes more wages than by the justices' order are limited, to be imprisoned twenty-one days without bail.

6th. The forfeitures are, one moiety to the King, the other to the informer, or him that will sue for the same. And lest these penalties and punishments might not suffice to keep masters and servants conformable to the wages limited by the justices' orders, but that some secret agreements might be made to elude them, the statutes further provide that every retainer, promise, gift, or wages, or other thing whatsoever, contrary to such orders, and every writing and bond to be made for that purpose, shall be utterly void and of none effect.

7th, and lastly. We the said justices, as the laws in this case do enjoin us, shall from time to time make strict inquiries and see the defaults against these ancient and useful statutes severally corrected and punished.

TABLE VI.\*—*Showing the rates of wages paid for agricultural labor in 1763 at various places in England, with the distance of each place from London.*

Places.	Pay per week.				
	Distance.	Harvest.	Haytime.	† Winter.	Medium.
	Miles.	s. d.	s. d.	s. d.	s. d.
Hatfield .....	20	13 3	9 0	6 6	7 6
Stevenage .....	30	12 0	9 6	6 6	7 4
Offley .....	34	15 0	11 0	6 0	7 3
Houghton .....	37	15 0	11 0	7 0	8 0
Milton .....	41	14 3	8 6	5 6	6 6
Wand. ....	49	13 9	11 0	5 0	6 4
Broughton .....	.....	13 0	9 0	5 6	6 5
Astwick .....	46	15 0	8 0	4 3	5 6
Biddenham .....	47	15 0	8 0	4 6	5 6
Hale Weston .....	53	14 6	9 6	6 6	7 5
Catworth .....	57	13 0	9 6	4 9	5 10
Ayclurch .....	70	13 3	11 0	4 9	6 1
Casterton .....	85	12 6	11 0	6 0	7 2
Paorton .....	99	0 9 0		6 0	7 0
Fossen .....	112	11 0	11 0	8 6	9 0
Cromwell .....	123	11 0	11 0	9 0	9 4
Drayton .....	134	11 0	11 0	9 0	9 4
Cantler .....	150	10 0	10 0	9 0	9 2
Coneysbro' .....	155	10 0	10 0	6 6	7 2
Ecolesheld .....	167	10 0	8 6	6 0	6 6
Woolley .....	165	8 0	7 0	4 9	5 3
Kiddel .....	194	10 0	7 0	6 0	6 6
Wilbersfort .....	192	11 6	7 0	4 0	5 0
Hatton .....	188	13 0	13 0	7 0	8 5
Risby .....	185	12 6		7 0	8 5
Stillingfleet .....	192	13 0	13 0	8 0	9 0
Holderness .....	193	14 0	14 0	8 6	9 7
Howden .....	173	9 6	7 0	6 0	6 5
Thorne .....	168	12 6	9 6	6 0	7 0
Wentworth .....	155	10 0	10 0	6 0	6 10
Driffield .....	200	13 0	11 0	6 6	7 7

TABLE VI.—*Showing the rates of wages paid for agricultural labor, &c.—Continued.*

Places.	Pay per week.				
	Distance.	Harvest.	Haytime.	† Winter.	Medium.
	<i>Miles.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Yeddingham .....	225	14 6	11 6	9 0	9 9
Newton .....	220	14 0	14 0	8 0	9 3
Nunnington .....	225	10 0	10 0	7 0	7 7
Kirby .....	238	8 6	8 6	7 0	7 3
Kirkleatham .....	260	10 6	9 0	5 0	5 11
Schorton .....	240	7 9	7 0	6 0	6 3
Gilling .....	264	15 0	7 6	5 0	6 3
Rookby .....	270	16 0	10 0	8 0	9 0
Fremington .....	260	.....	7 0	6 0	6 1
Kiplin .....	238	10 0	10 0	5 0	6 0
Swinton .....	230	9 4	10 0	7 0	7 6
Craikhill .....	239	6 6	6 6	4 9	5 1
Steningford .....	232	6 3	7 6	4 9	5 2
Danby .....	235	7 6	6 0	5 0	5 4
Asparth .....	240	7 6	7 6	7 0	7 1
Jaby .....	250	9 9	8 0	6 0	6 6
Gosworth .....	279	9 6	12 6	6 0	7 0
Morpeth .....	281	10 0	9 6	5 0	6 0
Alswick .....	310	8 3	8 3	5 0	5 8
Belford .....	325	6 0	6 0	6 6	5 2
Hetton .....	325	9 0	6 6	4 6	5 1
Fenton .....	330	9 0	9 0	6 0	6 7
Berwick .....	340	6 0	6 0	5 0	5 2
Rothbury .....	301	10 9	8 9	6 0	6 9
Cambo .....	290	10 0	10 0	8 6	8 9
Glenwelt .....	276	8 0	7 0	7 0	7 1
Ascot .....	296	8 0	10 0	8 0	8 2
Pearth .....	299	9 6	8 6	5 6	6 2
Kewick .....	226	6 6	6 6	7 0	6 10
Shapp .....	268	8 6	11 6	7 0	7 7
Holme .....	246	10 0	10 0	7 0	7 7
Kabers .....	230	10 0	10 0	7 0	7 7
Garslang .....	223	10 0	9 0	7 0	7 6
Ormakirk .....	200	6 0	4 0	5 0	4 11
Altringham .....	180	7 3	6 6	5 0	5 4
Knotford .....	170	9 6	9 6	6 0	6 9
Holm's Chapel .....	158	14 0	14 0	7 0	8 5
Stone .....	141	9 6	7 6	6 6	6 10
Shenstone .....	117	6 6	6 6	5 6	5 8
Aston .....	112	11 0	11 0	8 0	8 7
Hagley .....	110	11 0	11 0	6 6	7 5
Bromsgrove .....	118	11 0	11 0	6 0	7 0
Perthore .....	102	11 0	11 0	6 0	7 0
Beadsworth .....	96	11 0	9 6	6 6	7 3
Moreton .....	85	13 0	9 6	6 0	7 0
Bevington .....	47	15 0	6 6	6 6	7 1
Honley .....	35	12 6	9 6	6 6	7 5
Maidenhead .....	27	14 0	9 6	6 6	7 6
Harrodsdworth .....	16	12 6	8 6	6 6	7 3
Kensington .....	2	12 6	9 6	9 0	9 4
Mine .....	17	14 3	9 0	7 0	7 9
Averages .....	.....	10 8	9 5	6 5	7 1

\* Tables VI, VII, and VIII are taken from Arthur Young's Northern Tour, Vol. IV, pp. 442, 447, and 470  
† Under the general term "winter" Mr. Young includes the entire year, with the exception of hay-time and harvest, to which he assigns, respectively, six weeks and five weeks.



TABLE VII.—Showing the yearly wages of different classes of farm-servants, and the weekly wages of women employed in field-work in 1768 at various places in England.

Places.	First-men.		Second-men.		Lads.		Average.		Dairy-maids.		Other maids.		Average.	Women per week.		
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	s. d.	s. d.
Risby .....	13	0 0	12	0 0	7	0 0	10	0 0	5	0 0			4	12 0		
Stillington .....	11	0 0	8	0 0	6	0 0	8	6 0	5	0 0	4	4 0				
Holderness .....	13	0 0	9	0 0	5	0 0	9	0 0	3	15 0	3	15 0				
Howden .....	11	0 0	11	0 0	4	0 0	8	13 0	4	0 0	4	0 0				
Thorne .....	11	11 0	11	11 0	4	0 0	9	0 0	3	5 0	3	5 0				
Wentworth .....	9	10 0	7	10 0	4	0 0	7	0 0	3	0 0	3	0 0		6	9	3
Driffield .....	13	10 0	8	10 0	1	15 0	7	18 0	4	15 0	4	0 0	4	7 6	7	6
Newton .....	11	10 0	5	0 0	2	0 0	6	3 0	5	0 0	4	15 0	4	17 6	4	9
Nunnington .....	12	10 0	5	10 0	3	10 0	7	3 0	4	10 0	3	10 0	4	0 0	4	6
Kirby .....	8	0 0	5	0 0	2	0 0	5	0 0								
Kirkleatham .....	12	10 0	10	0 0	3	0 0	8	10 0	5	0 0	4	0 0	4	10 0	8	6
Soberton .....	12	0 0	9	0 0	4	0 0	8	6 6	4	0 0	4	0 0	4	0 0	7	9
Gilling .....	12	0 0	5	10 0	4	0 0	7	0 0	4	10 0	3	10 0	4	0 0	7	6
Bookby .....	12	0 0	4	0 0	3	0 0	6	6 0	5	10 0	3	0 0	4	5 0	14	6
Fremington .....	9	0 0	7	0 0	2	10 0	6	3 0	4	0 0	4	0 0	4	0 0	11	6
Kiplin .....	13	0 0	10	0 0	4	0 0	9	0 0	5	0 0	3	10 0	4	5 0	5	3
Swinton .....	11	10 0	7	0 0	3	0 0	7	3 0	5	0 0	3	17 0	4	8 6	5	6
Craskhill .....	10	15 0	9	0 0	3	10 0	7	13 0	4	10 0	3	10 0	4	0 0	5	3
Slensingford .....	12	0 0	9	0 0	4	10 0	8	10 0	5	0 0	4	0 0	4	10 0	5	0
Danby .....	15	0 0	8	0 0	4	0 0	9	0 0	5	10 0	4	0 0	4	15 0	5	3
Asparth .....	10	10 0	7	0 0	3	10 0	7	0 0	3	10 0	3	0 0	3	5 0	5	6
Baby .....	13	0 0	11	0 0	6	0 0	10	0 0	5	0 0	4	0 0	4	10 0	7	0
Goosworth .....	12	0 0	8	10 0	3	0 0	7	16 6	4	0 0	3	10 0	3	15 0	5	6
Morpeth .....	11	0 0	7	0 0	3	0 0	7	0 0	3	10 0	3	0 0	3	5 0	4	9
Alnwick .....	9	0 0	6	0 0	3	0 0	6	0 0	4	0 0	4	0 0	4	0 0	7	0
Belford .....	9	0 0	7	7 0	5	0 0	7	20 3	3	30 3	3	30 3	3	30 6	3	0
Hetton .....	10	0 0	7	0 0	5	0 0	7	6 8	2	10 0	2	10 0	2	10 0	6	0
Fenton .....	8	0 0	6	0 0	3	0 0	5	13 0	2	15 0	2	15 0	2	15 0	5	0
Berwick .....	9	0 0	7	7 0	5	0 0	7	9 0	3	30 3	3	30 3	3	30 6	3	0
Rothbury .....	12	0 0	8	0 0	3	0 0	7	13 0	3	50 3	3	50 3	3	50 7	0	6
Cambo .....	12	0 0	8	0 0	3	0 0	7	13 0	4	0 0	4	0 0	4	0 0	7	6
Glenwalt .....	10	0 0	6	0 0	1	0 0	5	13 0	5	0 0	4	0 0	4	10 0	6	6
Ascot .....	11	0 0	7	3 6	1	5 0	6	9 0	2	15 0	2	7 6	2	12 0	6	6
Penrith .....	13	0 0	9	0 0	3	0 0	8	6 6	5	10 0	3	10 0	4	10 0	5	3
Keawick .....	10	10 0	6	0 0	3	5 0	6	11 6	4	14 6	3	30 3	3	18 6	6	3
Shapp .....	9	0 0	7	10 0	2	10 0	6	6 6	4	10 0	4	10 0	4	10 0	5	6
Holme .....	9	10 0	6	0 0	3	0 0	6	3 0	4	40 2	2	17 0	3	10 6	6	6
Kabers .....	9	0 0	5	0 0	2	0 0	5	6 6	3	0 0	2	5 0	2	12 6	6	6
Garslang .....	10	0 0	7	0 0	1	18 0	6	6 0	3	10 0	3	0 0	3	5 0	5	6
Ormskirk .....	7	0 0	5	0 0	1	10 0	4	10 0	3	0 0	2	10 0	2	15 0	6	0
Altringham .....	8	0 0	5	0 0	2	0 0	5	0 0	4	10 0	2	10 0	3	10 0	6	3
Holm's Chapel .....	10	10 0	7	10 0	1	0 0	6	6 6	3	10 0	1	17 6	2	13 6	6	3
Stone .....	8	0 0	6	0 0	3	0 0	5	13 0	3	10 0	3	10 0	3	10 0	3	9
Shenstone .....	11	0 0	6	10 0	2	10 0	6	13 0	4	0 0	2	10 0	3	5 0	6	0
Aston .....	7	10 0	5	0 0	2	0 0	4	16 6	3	50 3	3	50 3	3	50 3	3	3
Hagley .....	10	0 0	6	15 0	2	15 0	6	8 6	3	10 0	2	15 0	3	2 6	6	0
Broomgrove .....	8	0 0	6	0 0	2	10 0	5	10 0	3	0 0	2	10 0	2	15 0	6	0
Pershore .....	9	10 0	8	0 0	3	0 0	6	16 6	3	0 0	3	0 0	3	0 0	6	0
Bendsworth .....	10	0 0	8	0 0	3	0 0	7	0 0	4	0 0	2	15 0	3	7 6	6	0
Moreton .....	7	10 0	5	0 0	2	5 0	4	16 6	4	0 0	3	0 0	3	10 0	6	0
Benalington .....	10	10 0	8	0 0	1	17 6	6	16 6	3	10 0	2	5 0	2	17 6		
Henley .....	8	0 0	5	10 0	2	0 0	5	3 0	4	0 0	3	5 0	3	10 0	6	3
Maldenhead .....	7	7 0	5	0 0	2	0 0	4	15 6	4	0 0	3	5 0	3	12 6	6	3
Harmondsworth .....	9	10 0	7	0 0	3	0 0	6	10 0	3	50 3	3	50 3	3	50 9	0	4
Kensington .....	10	5 0	7	3 6	3	0 0	6	16 0	4	10 0	4	10 0	4	10 0	8	0
Mims .....	11	5 0	8	0 0	2	0 0	7	3 0	4	15 0	4	15 0	4	15 0	8	0
Averages .....	10	8 6	6	11 0	3	2 0	5	5 0	3	19 0	3	5 0	3	9 0	6	3
	82		92													

\* Under the general term "winter," Mr. Young includes the entire year with the exception of hay-time and harvest, to which he assigns, respectively, six weeks and five weeks.

TABLE VIII.—*Showing the weekly wages of operatives in various industries at different places in England in the year 1768.*

Places.	Manufactures.	Labor.
		<i>s. d.</i>
Bedford.....	Lace.....	Women..... 4 6 Girls..... 4 0
Rotherham.....	Iron, potteries.....	Men..... 10 0 Boys..... 3 0
Sheffield.....	Plating, cutlery, &c.....	Men..... 13 6 Women..... 4 0
Wakefield.....	Cloths.....	Girls..... 3 0 Men..... 10 0 Boys..... 1 9 Colliers..... 11 0
Leeds.....	do.....	Men..... 8 3 Women..... 3 6 Boys..... 5 0 Girls..... 1 8
Ayton.....	Alum.....	Men..... 7 6 Women..... 7 6
Framington.....	Lead-mines.....	Women..... 6 0 Boys and girls..... 3 3
Darlington.....	Huckabacks.....	Men..... 8 6
Newcastle.....	Colliers.....	Men..... 15 0
Carlisle.....	Cotton-checks.....	Men..... 9 0 + Men..... 9 5 Women..... 3 3 x Children..... 2 0
Kendal.....	Stockings, cottons, linsey-woolsey, tannery.....	Men..... 8 7 Women..... 4 6 Children..... 2 6
Warrington.....	Sail-cloth, sacking, pins, shoes.....	Men..... 8 11 Women..... 7 1
Liverpool.....	Porcelain, stockings, glass.....	Women..... 5 4 Children..... 3 5
Manchester.....	Fustians, check, hats, small wares.....	Men..... 9 6 Women..... 6 6 Men..... 7 6
Burnley.....	Potteries.....	Women..... 4 6 Children..... 1 0 Men..... 9 0
Newcastle.....	Shoes, hats.....	Women..... 4 6 Children..... 1 0 Men..... 9 0
Worcester.....	Porcelain, gloves.....	Women..... 4 6 Children..... 2 3

Average of men.....	<i>s. d.</i> 9 6
Average of women.....	4 7
Average of children.....	2 8

TABLE IX.—*Showing the price of meat (chiefly of mutton) at different dates from A. D. 1596 to A. D. 1734, inclusive.*

## MUTTON.

	<i>£. s. d.</i>
1596. A whole mutton.....	0 18 0
A fat wether.....	0 15 0
1597. A fore-quarter of mutton.....	0 5 0
A fat wether, in wool.....	0 18 0
A fat sheep.....	0 14 0
1610. A mutton weighing 44 pounds or 46 pounds, the stone, (8 pounds) ..	0 2 3
A lamb.....	0 6 8
1618. A leg of mutton.....	0 1 10
A mutton.....	0 10 0
1660 to 1690. Mean price of mutton, the stone, (8 pounds) ..	0 1 4
1700. Live sheep, the pound, from.....	0 0 2½ to 3
1710. Beef, the pound.....	0 0 1½
Veal, ditto.....	0 0 2½
Mutton, ditto.....	0 0 2
Lamb, ditto.....	0 0 2½
1706 to 1730. Mutton, the stone.....	0 1 8
1730 to 1760. Mutton, the stone.....	0 2 0
1734. Mutton at Smithfield market, the stone.....	0 0 9

TABLE X.—*Showing the prices paid by the British Victualing Office for beef, pork, and butter, and for Cheshire and Suffolk cheese, from 1740 to 1795.*

Date.	Beef.		Pork.		Butter.	Cheshire cheese.	Suffolk cheese.
	Cwt.	Pound.	Cwt.	Pound.	Pound.	Pound.	Pound.
	<i>2 s. d.</i>	<i>d.</i>	<i>2 s. d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
1740	1 3 7½	2½	1 11 0½	3½	.....	.....	.....
1741	1 4 9½	2½	1 16 3½	3½	.....	.....	.....
1742	1 4 4	2½	1 12 9	3½	.....	.....	.....
1743	0 19 2½	2	1 7 2	2½	.....	.....	.....
1744	0 18 3½	1½	1 2 5½	2½	.....	.....	.....
1745	0 19 9½	2	1 1 9	2½	.....	.....	.....
1746	1 1 3½	2½	1 4 6½	2½	.....	.....	.....
1747	0 19 4½	2	1 4 0½	2½	.....	.....	.....
1748	.....	2½	.....	2½	.....	.....	.....
1749	.....	2½	.....	2½	5	.....	15-16
1750	.....	2	.....	2½	4½	.....	1½
1751	.....	2½	.....	2½	4½	.....	1½
1752	.....	1½	.....	3	4	2½	1½
1753	.....	2	.....	2½	5½	.....	1½
1754	.....	2½	.....	3	5½	.....	1½
1755	.....	2½	.....	3½	5½	.....	1½
1756	.....	2½	.....	3½	5 7-16	3	1½
1757	.....	2½	.....	3½	5½	3½	1½
1758	.....	2½	.....	4½	5 7-16	3	.....
1759	.....	2½	.....	3½	4½	2½	.....
1760	.....	2	.....	3	5½	2½	.....
1761	.....	2½	.....	3½	5	2½	.....
1762	.....	2	.....	3½	6½	3 7-16	.....
1763	.....	2	.....	.....	5½	2½	.....
1764	.....	2½	.....	4½	5½	3½	.....
1765	.....	2½	.....	4½	5	3	.....
1766	.....	.....	.....	.....	5½	.....	.....
1767	1 5 5½	2½	.....	.....	5½	3	.....
1768	1 5 3½	2½	.....	.....	5½	2 13-16	.....
1769	1 2 9	2½	1 13 0	3½	5 9-16	2½	.....
1770	1 2 2½	2½	2 1 5	4½	5½	3½	.....
1771	1 2 6	2½	2 3 3½	4½	6½	3½	.....
1772	1 6 3	2½	2 12 6	5½	6½	3½	.....
1773	1 4 0	2½	2 9 11	5½	7	3½	.....
1774	1 6 8½	3	1 18 3	4	6½	3½	.....
1775	1 10 4½	3½	2 4 7½	4½	5½	3½	.....
1776	1 8 7	3	2 2 11½	4½	6½	3	.....
1777	1 8 5½	3	2 3 11½	4½	7½	3½	.....
1778	1 5 8	2½	2 3 0	4½	8	3½	.....
1779	1 13 2	3½	1 18 6	4	8½	3½	.....
1780	1 11 2	3½	2 0 9	4½	7½	3	.....
1781	1 6 3	2½	1 17 6	4	5½	3½	.....
1782	1 6 8	2½	2 1 0	4½	6	3½	.....
1783	1 10 0	3	(*)	.....	6½	4½	.....
1784	(*)	.....	(*)	.....	7½	4½	.....
1785	11 5 6	2½	12 5 0	4½	6	4	.....
1786	1 8 6	3	.....	.....	6	4	.....
1787	1 6 5	2½	.....	.....	5	4	.....
1788	1 9 1	3	2 7 11	5	5	4	.....
1789	1 9 2	3	2 3 11	4½	4	5	.....
1790	1 8 9	3	2 3 2	4½	6	4	.....
1791	1 8 6	3	2 6 5	4½	6	4	.....
1792	1 8 7	3	2 6 5	4½	6	4	.....
1793	1 10 4	3½	2 6 5	4½	6	4	.....
1794	1 11 10	3½	2 7 7	5	6	4	.....
1795	1 13 11	3½	2 11 3	5½	7	4	.....

\* None bought.

† Ready money.

NOTE.—These prices are considerably lower than the price paid by the consumer, which, in 1795, was about 7d. a pound for beef and mutton; they, however, show the proportion between the prices of different periods. In the price per pound fractions less than one-fourth are omitted.

TABLE XI.\*—Showing the prices of the principal articles of subsistence in 1768, at different places in England, with the distance of each place from London.

Places.	Distance.	Bread.	Butter.	Cheese.	Mutton.	Beef.	Veal.	Pork.	Average of meats.
Hatfield.....	90	2	7	4	4	4	3½	.....	3½
Stevenage.....	32	2	7	3½	4	3½	4	4	3½
Olney.....	34	2	7	3½	4	4	3½	4	3½
Houghton.....	37	1½	.....	4	4	3½	4	4	3½
Milton.....	41	1½	7	4	3½	3½	.....	4	3½
Wandsworth.....	49	1½	7	4	4	3½	3	3½	3½
Broughton.....	.....	1½	6	4	3½	4	.....	.....	3½
Biddenham.....	47	1½	6	4	4	.....	.....	.....	3½
Weston.....	53	1½	7	4	4	3½	4	4	3½
Catworth.....	57	2	6	4	3½	4	3½	4	3½
Ayscough.....	70	1½	6	4	3½	3½	.....	4	3½
Osterton.....	85	.....	6	3	3	3	.....	.....	3
Byres.....	99	.....	6	4	3½	4	3½	.....	3½
Penon.....	99	.....	6	4	3	3½	.....	.....	3½
Fosnes.....	112	.....	6	4	3	3½	.....	.....	3½
Cromwell.....	123	.....	6	4	3	3½	.....	.....	3½
Drayton.....	134	.....	7	4	3	2	.....	.....	3½
Causton.....	150	.....	7	4	3	4	2	.....	3
Coneybrough.....	155	.....	6	4	3½	4	3	.....	3
Bocherham.....	161	1½	6	4	3½	3½	3	4	3½
Ecclesfield.....	167	1½	8	3½	3½	3½	3	4	3½
Woolley.....	165	.....	6	4	3½	3½	.....	.....	3½
Wakenfield.....	178	1½	7	.....	3½	3½	3	.....	3½
Leeds.....	190	1½	6½	4	4	4	2½	4	3½
Kidderley.....	194	.....	6½	4	3½	3	2½	.....	3
Whitmoor.....	.....	.....	6½	2	3½	3½	.....	.....	3½
Wilberfort.....	192	.....	6½	2½	3	4	.....	.....	3½
Hatton.....	188	.....	5½	2½	3	3	4	.....	3½
Kelby.....	185	.....	5½	2½	3	3	4	.....	3½
Skillingfleet.....	192	1	5½	2	3½	3½	.....	3½	3½
Hawden.....	173	1	5½	3	3½	3½	.....	.....	3½
Thorne.....	168	1	4	3	3½	3½	2½	3½	3½
Around Wentworth.....	155	1	6	3½	3½	3½	2½	.....	3
Driffield.....	200	.....	6	2	3	3	.....	.....	3
Honsaby.....	225	1½	6	2	3½	3	.....	.....	3
Newton.....	220	.....	5½	2	3	3	3	4	3
Nunnington.....	225	.....	4½	2	3	3	.....	4	3
Kirby.....	238	1½	7½	2½	3½	3½	4	.....	3½
Kirkleatham.....	260	1½	6½	1½	3½	3½	3½	4	3½
Soberton.....	240	1½	6½	2	3	3	3½	.....	3
Gilling.....	264	1½	7½	2½	3	3	.....	.....	3
Rooby.....	270	1½	6	2½	3½	3½	2	.....	3
Brough.....	280	1½	6½	2½	3	3½	2½	.....	3
Framington.....	230	.....	5½	2½	3	3	3½	.....	3
Kiln.....	238	1½	5½	2	3½	3½	3	.....	3½
Swinton.....	230	.....	5½	2	3	3	.....	.....	3
Craikhill.....	232	1	5½	1½	3½	3½	.....	.....	3
Steningford.....	232	1	5	2	3	3½	.....	.....	3
Danby.....	235	1	6½	2	3½	3½	3	4	3
Asparth.....	240	1	5½	2	3	3½	.....	.....	3
Raby.....	250	1	6½	2½	3	3½	3½	.....	3
Newcastle.....	276	.....	7	1½	2½	3½	3½	4	3
Morpeth.....	291	.....	8	2	3	3	2	.....	3
Alwick.....	310	.....	8	2½	2½	2½	2	3	3
Belford.....	325	.....	5½	2	2½	3½	.....	.....	3
Hatton.....	325	.....	5	2	2½	3	2	3	3
Boston.....	350	.....	5	2½	3	3	2	3	3
Rothbury.....	301	.....	5	2½	3	4	2½	3½	3
Cambo.....	290	.....	4½	2	3	3	.....	.....	3
Glenwell.....	276	.....	6	2	2½	3	2	3	3
Ascot.....	296	.....	6	2	2	3	2½	4	3
Penrith.....	282	.....	5½	2	2½	2½	2	3	3
Keswick.....	286	.....	5½	2	2½	2	2	3	3
Shapp.....	268	.....	6	2½	2½	2½	2½	4½	3
Kendal.....	256	1	6½	3½	2½	2½	2½	4½	13
Holme.....	246	.....	5½	3	2	2½	2	4	3
Kabers.....	230	.....	8	3	2½	2½	.....	4	3
Garalang.....	223	.....	7	3	3	3	.....	3	3
Warrington.....	182	.....	7½	3	3	3	3	4	3
Liverpool.....	200	1½	7	3½	3½	2½	4	4	3
Akringham.....	180	.....	6	3	3	2½	3½	3½	3
Knotford.....	170	.....	6	2½	3½	2½	4	4	3
Holmes-Chapel.....	158	.....	6	3	3½	2½	3½	3½	3
Newcastle under Line.....	150	1	8	3	3	3	3	.....	3
Shenstone.....	117	1	7	2	2½	2½	.....	3	3
Aston.....	112	1	8	2½	2	2½	.....	3½	3
Hagley.....	110	1½	6	4	3½	3	3	3½	3

\* Tables XI, XII, and XIII are taken from Arthur Young's "Northern Tour," vol. iv, pp. 424, 435, and 469.

TABLE XI.—Showing the prices of the principal articles of subsistence, &amp;c.—Continued.

Places.	Distance.	Bread.	Butter.	Cheese.	Mutton.	Beef.	Veal.	Pork.	Average of meats.
Broomsgrove .....	118	1½	6½	3½	2½	3	2½	4	3½
Pershore .....	102	1½	7	3	3	3	2	4	3
Bendsworth .....	96	1½	8	3½	3	2½	3	3½	3
Moreton .....	85	1½	7	3½	3½	3½	2½	4	3½
Bensington .....	47	1½	6	4	3½	3½	3	4	3½
Henley .....	35	1	7	4	3½	3½	3½	4	3½
Maidenhead .....	27	1½	7	4½	3½	3½	4	4	3½
Harmsworth .....	16	1½	7	4	3½	3½	4	4	3½
Kensington .....	9	1½	8	4½	3½	2½	3½	4	3½
Mims .....	17	1½	8	4½	3½	3½	4½	4½	4
Averages .....		1½	6	3	3	3	3	3½	3

TABLE XII.—Showing the yearly expenditures of workingmen for house-rent, fuel, and the wear of tools, at various places in England in 1768.

Places.	House-rent.	Firing.	Tools.	Places.	House-rent.	Firing.	Tools.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
Hatfield .....	2 15 0	2 0 0	1 5 0	Asgarth .....	0 15 0	1 10 0	0 5 0
Stevenage .....	2 0 0	0 0 0	1 1 0	Raby .....	1 15 0	1 5 0	0 0 0
Offley .....	2 2 6	1 10 0	1 10 0	Newcastle .....	1 10 0	1 10 0	.....
Houghton .....	2 0 0	2 10 0	0 12 0	Goeworth .....	1 10 0	1 10 0	.....
Milton .....	1 10 0	1 5 0	0 6 0	Morpeth .....	0 10 0	0 10 0	.....
Wauden .....	2 0 0	0 0 0	0 15 0	Alnwick .....	1 0 0	1 0 0	0 9 0
Broughton .....	1 0 0	2 10 0	1 0 0	Belford .....	1 0 0	1 4 0	0 0 0
Hale Weston .....	1 7 6	1 10 0	1 0 0	Hetton .....	0 10 0	0 15 0	0 0 0
Catworth .....	1 0 0	1 5 0	0 8 6	Berwick .....	1 0 0	1 5 0	.....
Aychurch .....	0 3 9	2 10 0	0 8 0	Fenton .....	0 10 6	1 0 0	0 0 0
Casterton .....	0 14 0	.....	.....	Rothbury .....	0 15 0	1 0 0	.....
Byten .....	0 19 0	1 10 0	.....	Cambo .....	0 10 0	0 16 0	.....
Paonton .....	2 10 0	2 0 0	.....	Glenwelt .....	0 15 0	0 10 0	.....
Fosson .....	0 15 0	1 10 0	.....	Ascot .....	0 15 0	.....	.....
Cromwell .....	1 5 0	1 0 0	.....	Penrith .....	1 0 0	1 10 0	.....
Drayton .....	1 0 0	1 15 0	0 14 0	Keswick .....	1 0 0	1 5 0	.....
Cantley .....	1 10 0	1 0 0	0 5 0	Shapp .....	1 10 0	1 5 0	.....
Coneybrough .....	1 10 0	1 4 0	0 5 0	Kendal manufac- tures .....	1 10 0	2 7 6	.....
Ecclesfield .....	2 0 0	1 0 0	0 6 0	Holme .....	1 2 6	1 7 6	.....
Woolley .....	1 10 0	0 12 9	.....	Kabers .....	1 0 0	1 0 0	0 10 6
Wakefield manu- factures .....	2 5 0	1 0 0	.....	Garslang .....	1 7 6	1 10 0	.....
Leeds manufactures .....	2 0 0	1 0 0	.....	Warrington man- ufactures .....	1 5 0	0 16 0	.....
Kiddel .....	0 18 0	1 0 0	0 5 0	Liverpool .....	1 5 0	0 17 6	.....
Wilbersfort .....	1 0 0	1 10 0	.....	Altringham .....	1 10 0	1 0 0	.....
Hatton .....	1 0 0	1 0 0	0 10 0	Knotsford .....	2 5 0	1 0 0	.....
Raby .....	1 0 0	0 5 0	0 15 0	Holmes-Chapel .....	1 7 6	1 1 0	.....
Stillington .....	1 0 0	1 0 0	0 5 0	Newcastle manu- factures .....	2 12 6	1 2 6	.....
Howden .....	1 10 0	0 15 0	.....	Stone .....	0 11 3	.....	.....
Thorne .....	1 5 0	0 12 0	0 5 0	Shenstone .....	1 15 0	1 10 0	.....
Wentworth .....	1 5 0	0 12 0	0 4 0	Awon .....	2 0 0	1 5 0	0 7 6
Driffield .....	1 10 0	1 10 0	0 0 0	Hagley .....	2 15 0	1 10 0	0 5 0
Newton .....	0 18 0	1 5 0	0 5 0	Broomsgrove .....	2 0 0	1 10 0	.....
Nunnington .....	1 0 0	1 5 0	0 10 0	Pershore .....	1 5 0	1 10 0	0 10 0
Kirby .....	1 5 0	0 10 0	0 5 0	Bendsworth .....	0 12 6	1 5 0	0 2 6
Kirkleatham .....	1 0 0	1 10 0	0 2 6	Moreton .....	1 15 0	0 0 0	.....
Schorton .....	1 0 0	1 8 0	0 5 0	Bensington .....	1 10 0	1 5 0	0 2 6
Gilling .....	0 18 6	1 10 0	0 3 6	Henley .....	2 5 0	2 0 0	0 8 9
Rookby .....	0 5 0	2 10 0	0 3 6	Maidenhead .....	2 10 0	2 10 0	0 5 0
Brough .....	1 10 0	1 0 0	.....	Harmondsworth .....	3 15 0	0 0 0	0 7 6
Fremington .....	1 5 0	1 15 0	.....	Kensington .....	5 0 0	.....	.....
Kiplin .....	1 5 0	0 16 0	0 3 0	North Mims .....	3 10 0	0 0 0	0 7 6
Swinton .....	1 7 6	0 15 0	0 6 0	Averages .....	1 8 2	1 3 11	0 7 11
Craikhill .....	1 5 0	1 0 0	0 10 0				
Slingsford .....	0 15 0	0 0 0	0 5 0				
Danby .....	0 17 6	0 17 6	0 12 2				

TABLE XIII.—Showing the yearly value of servants' board, washing, and lodging at various places in England in 1768.

	£. s. d.
Danby .....	8 13 4
Ormskirk .....	9 0 0
Altringham .....	8 13 4
Knotsford .....	10 8 0
Stone .....	6 10 0
Shenstone .....	9 0 0

	£	s.	d.
Hagley .....	10	0	0
Broomsgrove .....	6	0	0
Bendsworth .....	12	0	0
Bensington .....	10	0	0
Average .....	9	0	0

TABLE XIV.—*Showing the prices of provisions in the hundreds of Colneis and Carlford, in the county of Suffolk, England, from 1792 to 1796.*

	First quarter 1792.	First quarter 1793.	First quarter 1794.	First quarter 1795.	First quarter 1796.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Second flour, the sack .....	1 11 0	1 14 6	1 15 6	2 8 0	4 0 0
Third flour, the sack .....	1 9 0	1 13 0	1 13 6	2 6 0	3 18 0
Malt, bushel .....	1 1 0	1 2 0	1 3 0	1 2 6	1 3 6
Wheat, cwt .....	4 12 0	12 0 0	5 5 0	6 15 0	.....
Barley, cwt .....	1 11 0	1 13 6	1 15 6	1 17 0	2 6 0
Mutton, pound .....	0 0 4½	0 0 4½	0 0 4½	0 0 4½	0 0 5½
Suffolk cheese, cwt .....	1 0 0	0 17 0	0 19 0	0 17 6	1 2 0
Derby cheese, cwt .....	2 6 0	2 4 0	2 5 0	2 7 0	2 8 0
Soap, pound .....	2 16 0	2 12 0	2 16 0	3 8 0	4 0 0
Candles, dozen pounds .....	0 7 2	0 7 0	0 7 0	0 7 6	0 9 3
Coal, the chaldron .....	1 3 0	1 9 6	1 9 6	.....	.....
Butter, the firkin .....	1 16 0	.....	.....	2 4 0	.....
Potatoes, the sack .....	.....	.....	.....	.....	.....

TABLE XV.—*Showing the expenses and earnings of two families of agricultural laborers in a manufacturing parish near Carlisle, Cumberland.*

	No. 1.—Four persons.		No. 2.—Six persons.	
	1792.	1794.	1793.	1795.
<b>EXPENSES BY THE WEEK.</b>				
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bread, flour, or oatmeal .....	0 3 4	0 3 6	0 4 1	0 4 6
Yeast and salt .....	0 0 1½	0 0 1½	0 0 2	0 0 2
Bacon or pork .....	0 0 10	0 0 10	0 0 2	0 0 2
Tea, sugar, and butter .....	0 0 10	0 1 0	0 0 6	0 0 6
Soap .....	0 0 2½	0 0 2½	0 0 2½	0 0 2½
Candles .....	0 0 1½	0 0 1½	0 0 0½	0 0 0½
Small beer .....	0 0 3½	0 0 4	.....	.....
Milk .....	0 0 6	0 0 7	0 0 10½	0 0 10½
Potatoes .....	0 0 5	0 0 5	0 0 10	0 0 10
Thread and worsted .....	0 0 1½	0 0 1½	0 0 2	0 0 2
Total per week .....	0 6 9½	0 7 2½	0 7 0½	0 7 5½
Total per year .....	17 12 1	18 14 10	18 5 1	19 7 10
<b>EARNINGS PER WEEK.</b>				
Man, average .....	0 7 6	0 8 0	0 7 0	0 7 6
Woman .....	0 1 4	0 1 4	0 2 0	0 2 0
Children .....	.....	.....	.....	.....
Total per week .....	0 8 10	0 9 4	0 9 0	0 9 6
Total per year .....	22 19 4	24 5 4	23 8 0	22 14 0
<b>EXPENSES PER YEAR.</b>				
Provisions, as above .....	17 12 1	18 14 10	18 5 1	19 7 10
Rent .....	2 10 0	2 10 0	1 7 0	1 7 8
Fuel—coal, wood, and peat .....	2 0 0	2 0 0	1 14 4	1 14 4
Clothing .....	2 0 0	2 10 0	1 16 0	2 0 0
Bridals, burials, sickness .....	.....	.....	0 1 0	.....
Total expenses per year .....	24 2 1	25 14 10	23 3 5	24 9 2
Total earnings per year .....	22 19 4	24 5 4	23 8 0	22 14 0
Surplus, (+); deficiency, (—) .....	— 1 2 9	— 1 9 6	+ 0 4 7	+ 0 4 10

NOTE.—No. 1 is a decent family, living well, and managing economically; the man 35, woman 30, children under 7 years of age. No. 2, the man 35 years, wife the same, and four small children; often in great distress.

TABLE XVI.—*Showing the expenses and earnings of two families of agricultural laborers at Buckden, in Huntingdonshire.*

	No. 1.—Four persons.		No. 2.—Six persons.	
	1792.	1795-'96.	1793.	1795-'96.
<b>EXPENSES PER WEEK.</b>				
Bread, flour, or oatmeal.....	£ 3 10	£ 2 5½	£ 5 10	£ 4 10½
Bacon or other meat.....	0 1 0	0 1 4½		
Tea, sugar, and butter.....	0 0 9	0 1 0½	0 0 9	0 1 0
Soap and blue.....	0 0 1½	0 0 2½	0 0 1½	0 0 2½
Candles.....	0 0 2	0 0 3	0 0 2	0 0 3
Yeast and salt.....		0 0 2	0 0 2½	0 0 3
Cheese.....	0 0 4	0 0 6		
Beer.....	0 0 2½	0 0 3½		
Potatoes.....				0 0 6
Thread and worsted.....	0 0 0½	0 0 0½	0 0 1½	0 0 1½
Total per week.....	0 6 5½	0 6 3½	0 5 2½	0 7 2½
Total per year.....	16 16 11	16 7 2	18 13 9	18 15 11
<b>EARNINGS PER WEEK.</b>				
Man, average.....	0 7 4	0 7 4	0 7 3	0 7 3
Woman, average.....	0 0 5	0 0 5	0 1 2	0 1 2
Children, average.....	0 0 10	0 0 10		
Total earnings per week.....	0 8 7	0 8 7	0 8 5	0 8 5
Total earnings per annum.....	22 12 4	22 12 4	21 17 8	21 17 8
<b>EXPENSES PER ANNUM.</b>				
Provisions, as above.....	16 16 11	16 7 2	18 13 9	18 15 11
Rent.....	2 2 0	2 2 0	2 7 0	2 7 0
Fuel.....	2 3 0	2 8 0		
Shoes.....	1 5 0	1 10 0	1 6 0	1 11 6
Other clothes and furniture.....	2 18 0	3 5 0	3 0 0	3 11 0
Births, burials, sickness.....	0 9 0	0 9 0	1 1 0	1 1 0
Total expenses per year.....	25 13 11	26 1 2	26 7 9	27 6 5
Total earnings per year.....	22 12 4	22 12 4	21 17 8	21 17 8
Surplus, (+); deficiency, (—).....	—3 1 7	—3 8 8	—4 10 1	—5 8 9

NOTE.—The parish allows barley at 3s. the Winchester bushel. Even with this indulgence No. 2 live almost entirely on barley, water, and a few potatoes.

No. 1.—Man and wife under 40, boy 16 years, and a baby. This man, as well as No. 2, is a shepherd, and their wages are lower than those of other laborers. They make up their deficiencies by keeping two pigs and cultivating a little garden.

No. 2.—Man and wife under middle age, girl 11, boy 9, girl 6, girl 2½, a boy at service. During last year the family received 1s. a week from the parish.

TABLE XVII.—*Showing the expenses and earnings of three families of agricultural laborers at Clopphill, in Bedfordshire, England, in 1795.*

Expenses by the week.	No. 1.—Four persons.	No. 2.—Six persons.	No. 3.—Six persons.
Bread, flour, or oat-meal.....	0 4 0	0 7 6	0 7 6
Bacon or other meat.....	0 0 9	0 1 6	0 1 6
Yeast and salt.....	0 0 3	0 0 2½	0 0 3
Thread and worsted.....	0 0 1	0 0 2	0 0 2
Tea, sugar, and butter.....	0 0 10	0 1 0	0 0 10½
Soap.....	0 0 1½	0 0 2½	0 0 5
Candles.....	0 0 4	0 0 5	0 0 5
Cheese.....	0 0 0	0 0 0	0 0 0
Beer.....	0 0 2½	0 0 4	0 0 7
Potatoes.....	0 1 3	0 1 0	0 0 0
Total per week.....	0 7 11	0 12 4½	0 11 2½
Total per year.....	20 11 8	32 2 5	30 8 10

TABLE XVII.—*Showing the expenses and earnings of three families of agricultural laborers at Clopphill, in Bedfordshire, England, in 1795.—Continued.*

Expenses by the week.	No. 1.—Four persons.	No. 2.—Six persons.	No. 3.—Six persons.
<b>EARNINGS PER WEEK.</b>			
Man, average.....	£ s. d. 0 7 6	£ s. d. 0 8 0	£ s. d. 0 7 6
Woman, average.....	0 1 6	0 0 0	0 1 6
Children, average.....	0 0 0	0 2 6	0 4 0
Total per week.....	0 9 0	0 10 6	0 13 0
Total per year.....	23 8 0	27 6 0	33 16 0
<b>EXPENSES PER ANNUM.</b>			
For provisions, as above.....	20 11 8	32 2 5	30 8 10
For rent.....	1 15 0	1 10 0	1 10 0
For wood.....	1 10 0	0 13 0	1 12 6
For clothing.....	1 11 6	1 11 6	2 2 0
For sickness.....	0 5 0	0 5 0	0 5 0
Total expenses per annum.....	25 13 2	36 1 11	35 18 4
Total earnings per annum.....	23 8 0	27 6 0	33 16 0
Deficiency *.....	2 5 2	8 15 11	2 2 4

\* Harvest earnings not included; they go a great way toward making up deficiencies.

No. 1.—Eldest child, 3 years; youngest a baby.

No. 2.—One girl 10, second 8; two others under 5 years. This family has a large garden and keeps a pig. The parish allows 1s. a week.

No. 3.—Eldest girl 13, other girl 10, two boys under 5 years. The laborer is allowed by his master barley at 3s. bushel.

#### EXTRACTS FROM THE HALLIWELL COLLECTION OF MANUSCRIPTS.

Below are presented a few extracts from a large collection of bills, accounts, and inventories, illustrating the history of prices between the years 1650 and 1750, presented to the Smithsonian Institution in 1852, by James Orchard Halliwell, esq., of Brixton Hill, near London, and now embraced in the Library of Congress. The collection comprises about seven thousand separate documents, bound in fifty-four volumes, and intended as materials for a projected work on the history of prices. The design of preparing such a work having been abandoned, the collector of these valuable manuscripts presented them "to the people of the United States, who, beyond all others," says he, "are most likely to produce a writer on the history of commerce willing to make use of materials which will strikingly illustrate the immense commercial progress the world has achieved during two centuries."

The following entries, culled from the household account-book of the Archer family, illustrate the rates of wages in 1710.

#### EXPENDITURES FOR LABOR.

		£	s.	d.
1710.				
Mar.	5th. Paid George Hill for 4 weekes worke.....	0	9	6
	12th. Paid Goodman Mills for 2 days' work.....		1	8
	18th. Paid Wm. Judge 6 days.....		9	0
	George Hill 6 days and $\frac{1}{2}$ .....		5	5
	John Hearsh 6 days and $\frac{1}{2}$ .....		2	2
	John Fisher 6 days and $\frac{1}{2}$ .....		2	2
	Mills, serving Whisler, 7 days.....		6	8
	26th. Paid ye taylor for makeing my conte.....		1	6
May	5th. Paid my br. fer 2 weeks to ye workmen.....	3	17	1
	8th. Given ye carpenter as drew ye draught of ye farm-house.....	1	1	6
July	11th. Paid Wm. Austin for half a yeare's washing.....		6	0
	20th. Paid Whisler and his man, one day.....		2	6
	23d. Paid for makeing 34 qr. and 6 bushells of malt.....	9	7	0



1710.		£	s.	d.
July	25. Paid Booth for fining the ale.....	0	10	4
	26th. Paid Tom Johnson's wife for makeing my shirts and mending my br's shirts .....	8	0	
	27th. Paid ye washerwoman for 2 days .....	0	6	
	30th. Paid Mrs. How for doing my gown .....	7	0	
Aug't	28th. Paid Horwood's bill 37 weeks' work .....	10	12	0
	29th. Paid Rose for 9 days' washing.....	2	6	
Oct.	12. Paid the tayler for 4 dayes' work.....	4	0	
	23d. Paid Rose for 12 days' washing.....	3	0	
Nov.	3d. Paid John Dore 2 weekes' worke.....	10	0	
Dec'r	8th. Paid George Hill half a year's wages.....	2	10	0
	Paid Alice half a year's wages due to her 29th September.....	2	10	0
	Paid Home for 5 weeks' work .....	1	5	0
	Paid Mr. Rawlins, for surveying the woods and measuring ye brewhouse .....	66	15	0

## PRICES IN 1710 AND 1711.

From the same source the following entries are selected as examples of the prices of a large number of commodities purchased between June 21, 1710, and August 21, 1711:

1710.		£	s.	d.
June	21. Paid for six bottles of wine and white bread.....	0	12	6
	22. Paid for 2 qr. and a half of oates.....	2	10	0
	25. Paid for 3 yards of ribon .....	0	3	6
	26. Paid for a tin sauce pan .....	0	0	6
	28. Paid for six yards of lace.....	1	3	0
	Paid for a salmon and bread.....	0	6	6
	29. Paid for a side of mutton.....	0	8	6
July	6. Paid for a looking-glase and 2 knives.....	0	7	0
	Given Robin to buy a whip .....	0	5	0
	14. Paid for 4 groce of corks .....	0	8	0
	15. Given Greeve's maid for a pig.....	0	5	0
	17. Paid for 7 chickings.....	0	2	4
	Paid for crawfish and trouts and graylings.....	0	4	6
	Paid for more crawfish .....	0	1	4
	19. Paid for anchoves, one pound.....	0	1	8
	Given for a shoulder of vension.....	0	5	0
	Paid ye postman for letters .....	0	1	6
	21. Paid Daniell Heathcoate for a sheep .....	0	13	6
	24. Given White's man for a lamb.....	0	5	0
	25. Paid for 5 couple of rabbits .....	0	5	0
	27. Paid ye washer woman for 2 dayes .....	0	0	6
Aug.	1st. Paid for 2 couple of rabbits and a pd. of capers.....	0	3	6
	Paid for a sheep, weight 75 pound.....	0	18	6
	3d. Given Mr. Ward for 2 shoulders of vension.....	0	5	0
	5th. Paid for a watch-case, and paid for cleaning the 2 clocks.....	0	19	0
	6th. Paid for 10 ducks.....	0	5	0
	7th. Paid for Sue Eyre's gloves.....	0	1	0
	10th. Paid for 6 pd. of butter.....	0	2	3
	Paid for two couple of rabbits.....	0	2	0
	Paid for a bushell of salt.....	0	2	8
	Paid for 2 dozen and 9 orringes.....	0	8	6
	Paid for musheromes.....	0	3	6
	14th. Paid for a pair of shoes.....	0	2	6
	Given ye Duke of Devonshire's keeper and his man for a buck....	0	2	6
	15th. Given for two pair of stockings.....	0	5	0
	17th. Paid for 6 pd. of butter .....	0	2	3
	Paid for 14 pd. bacon, at 5d. $\frac{1}{4}$ peny.....	0	6	5
	Paid for a salmon .....	0	5	6
	18th. Paid Mary Vicars for carrying water.....	0	3	4 $\frac{1}{2}$
	20th. Paid Mr. Charles Bagshaw for 16 qr. of oates.....	11	4	0
	Paid Robert Scholar for 6 bushells of wheat.....	1	18	0
	Paid ye tayler for a busk.....	0	0	6
	Paid for a handkerchief.....	0	3	0
	23rd. Paid for 2 pair of shoes.....	0	7	0
	Paid Daniel Heathcott for a calf.....	0	13	6
	Given to Ward and his man for a buck .....	1	4	0

		£	s.	d.
1710.				
Sept.	1st. Given a maid for a pig .....	0	2	6
	6th. Paid for this dayes bread .....	0	1	2
	11th. Paid ye miller for 5 bushells of barley .....	0	15	0
	Paid for a part in a mine .....	6	10	0
	Given Sr. Philip Gell's boy for a side of vension .....	0	5	0
	25th. Paid Mr. Awood for 2 qr. of oates .....	1	5	0
	Paid for a coach glase .....	1	5	0
	Given for a hare .....	0	2	0
Oct.	3rd. Paid for 2 geese .....	0	3	0
	Paid for 8 qr. of oates, at 13s. and 4d. per .....	5	6	8
	4th. Paid for 2 dayes bread .....	0	3	6
	5th. Paid for 2 quarts of white wine .....	0	4	0
	Paid ye brassier for a sauce pan and candlestk .....	0	5	6
	Paid for mending ye windows .....	0	1	6
	6th. Paid for 3 couple of rabbits and mending ye warming-pan .....	0	4	0
	Paid for a peck of potatoes .....	0	0	6½
	6th. Paid for an Apron for Jack .....	0	2	6
	9th. Paid for 6 pd. of butter .....	0	2	3
	Paid for 12 chickings .....	0	3	0
	16th. Paid for setting 2 hares .....	0	2	0
	23rd. Paid for 5 dozen of soape .....	0	5	0
	Paid for 2 pd. of brisketts .....	0	3	6
	29th. Paid for 11 partridges .....	0	3	8
	Paid for a pair of shoes .....	0	4	0
	31st. Paid ye Duke of Devon quitt rent .....	1	10	0
	Paid for boyled wheat .....	0	1	0
Nov.	1st. Paid Mr. Bosley for cureing my eye .....	1	12	3
	Given Mr. Bosley for letting me blood .....	0	5	0
	4th. Paid Tho. Johnson, ye miller, for 15 loads of malt and 5 bushells and a half of barley .....	21	2	0
	6th. Paid for 2 ounces of nutmegs .....	0	1	0
	Paid for 3 couple of rabbits .....	0	2	0
	Paid for 16 pd. of butter .....	0	6	0
	7th. Paid Tom Eyre for 38 st. of bacon .....	0	17	0
	9th. Paid my mother her first rent .....	26	8	9
	Paid for 2 pecks of apples .....	0	2	8
	10th. Paid John Dale for 5 pair of stockings .....	0	16	3
	Paid for 4 pair of gloves .....	0	8	0
	Paid for a wheelbarrow .....	0	5	0
	Paid for starch and indegoe .....	0	1	6
	Paid for 3 ells of Holland .....	0	2	0
	Paid Mrs. Buxton for 33 yds. of cloath .....	1	17	6
	10th. Paid for half a dozen of brooms .....	0	10	06
	Given Mr. Ward's man for 2 shours. of ven. ....	0	5	00
	16th. Paid for a hind qr. of mutton .....	3	00	
	Given to the poor of Bakewell .....	02	10	00
	22d. Paid for a pair of leading-strings .....	6	00	
	25th. Paid my sister Carter for my stays .....	10	00	
	30th. Paid for lace for 2 heads and ruffles .....	07	03	06
Decr.	2d. Paid for a hatt at Dunstable .....	8	00	
	Paid for a pair of bodice .....	15	00	
	Paid the coachman as carried my dear down into Essex .....	08	00	
	5th. Paid Robin for a weekes board wages .....	7	00	
	Paid for a gown and coat for dear Willy .....	5	15	03
	Paid for a buckle for little Will .....	4	06	
	6th. Paid for a pair of earrings .....	03	00	00
	Paid for playthings for ye child .....	02	06	
	Paid Mr. Burchett for ye picture .....	12	18	00
	Paid for a vessell of beer .....	5	00	
	8th. Paid for my handkerchift and 2 girdles .....	04	01	00
	10th. Paid my aunt Gell's interest due at Michaelmas 1710 .....	20	15	00
	Paid for a barrel of beer .....	5	00	
	Paid for 3 pair of gloves for ye child .....	03	00	
	Paid for paper and wax and ink .....	01	01	00
	17th. Paid for 2 lobsters .....	03	06	
	19th. Paid for a common-prayer book and St. Austine's Meditations .....	01	06	00
	Paid for wine and beer, and a cart and porter, and for musterd, and for bringing billets .....	17	06	
	22d. Paid for a set of wheels for ye chariot .....	05	00	00

		£	s.	d.
1710.				
Decr.	23. Paid Martin for a coach glass.....	0	16	00
	Paid for shoeing ye mare.....		02	00
	Paid for a pair of patenings and clogs.....		08	06
	Paid for a tin basket for plates.....		05	00
	Paid for a dozen pair of gloves.....	01	04	00
26th.	Paid for a dozen of sope plates.....		17	00
	Paid for 2 box irons and a candlestick.....		15	00
	Paid for a pair of elipers.....		07	00
	Paid for wash balls and sweet water.....		17	00
26.	Paid for a dozen of mops.....		11	00
	Paid Mr. Bright's bill for ye horses standing 25 night.....	19	00	00
	Paid for making a gown and pettycoate, and scouring it.....	01	10	00
28th.	Given Parson Sherley's man.....		05	00
	To Dr. Cook for my illness.....	11	16	06
1711.				
Jan. ye 12th.	Paid for 2 pair of stockings and 3 mettings.....		18	00
15th.	Paid all our men for a yeare's washing to this day twelvemonth.....	04	04	00
ye 25th.	Given R. for going to Newbury when I was ill.....		10	00
	Paid for 6 pd. and $\frac{1}{2}$ of eells.....		02	02
26th.	Paid for 12 bottles of wine from Smith's.....	01	10	00
27.	Paid for 6 pair of mittings and patches.....		14	00
31st.	Paid Robin for a pair of bootts.....		10	06
	Paid Mary Hassell for 9 pd. of butt.....		05	06
Feb.	2d. Paid for 3 wild ducks.....		01	06
	Paid Dr. Cook to return to London.....	11	00	00
11th.	Paid J. Winkwork for 2 pair of shoes for myself, and a pair of bootts for Johnathan.....		15	00
	Paid Frank Ffisher for 2 ducks and a drake.....		01	06
11th.	Paid for 2 large plumb-cakes.....	3	10	00
	Pd. for boxes to put ym. in.....	0	2	0
	Pd. ye carryour for bringing ye watch up.....	0	0	6
	Paid for bringing it from ye inn.....	0	0	3
	Pd. for one glass for ye spectacles.....	0	0	6
16th.	Paid for a letter.....	0	0	3
17th.	Paid for mending ye gold watch.....	3	0	0
25.	Paid for a letter.....	0	0	3
	Paid for a pr. of white sattin shoes for little master.....		2	0
	Paid for 2 pr. of stockins for little master.....		2	0
	Paid for a pr. of clowded wosted.....		10	6
Mar.	15th. Paid for an ounce and $\frac{1}{2}$ of gold thred, at 6s. 8d.....		10	0
	Paid for 3 qrs. of a yeard of plain muslin and starching.....		6	3
20th.	Paid for a pattorn for an apron.....		1	0
24th.	For 6 pownd of tobaccoe and a box.....		12	6
	Paid for a peice of diaper tape.....		1	0
24th.	Paid for 1 peice of narrower ditto.....	0	0	8
	Paid for $\frac{1}{2}$ a hundred of needles.....		0	6
	Paid for a hatt and a silver edging to it.....		9	0
29th.	Paid for 2 bottles of Doctr. Bifield's drops.....		5	0
	Paid for another hatt and silver edging.....		9	0
31st.	Paid for a baby ready dressed.....		10	6
Apr.	1st. Paid for a peice of rich silke for a pr. of shoes and faceing.....		3	6
	Paid for 2 brass knockers for a dore and a hatch.....		17	0
	For 12 pd. of tobacco and a 16 pd. box.....	1	4	9
6th.	Paid for little master's white tammy coat.....		10	0
9th.	Paid for 2 hundred of sparraguse and a basket.....		5	0
23.	Paid for 4 yds. $\frac{1}{2}$ of brocaded silke for mastr. coate.....	2	5	0
24.	For $\frac{1}{2}$ a pd. of pack thred.....		0	6
May	5th. Paid for a new lid for an old box to send ye coat in.....		0	2
6th.	Paid for a dozen of kid gloves.....	2	10	0
ye 13.	Paid for ye loadstone.....	2	10	0
ye 22.	Paid for 2 pd. of coffy.....		12	0
ye 26.	Paid for a pair of white satting shoes of little master.....		2	0
May ye 26th.	Paid for a guilt correll.....		1	9
June ye 2d.	Paid for 11 yds. of rosett, at 4s. 3d. ye yd.....	2	6	6
ye 5th.	Paid Willett for druggett, and Durant for a sute of clothes.....	2	19	0
	Paid ye mantowoman's bill for making ye gown and conte, &c.....	1	1	0
8th.	Paid for a pr. of wosted stockins for Mr. Archer.....		6	6
24th.	Paid for a new telliscope.....	1	4	0
July	7. Paid for ye oring flowers and ye bottle.....		5	9

		£	s.	d.
1711.				
July	22. For making six shirts for Mr. Tho. Eyer, and buttons.....	0	10	2
Augt.	1st. Paid for a yd. and $\frac{1}{4}$ of white damask for ye pettycoates .....		9	0
	4th. Paid for a piece of tape .....		0	9
	Paid for a pair of bodys.....		18	0
	5th. Paid for a new lid for ye box to send ye stays in.....		0	2
	Paid for a firkin of sope.....	1	6	0
	6th. Paid for 3 qrs. and $\frac{1}{4}$ of cherry and scarlett silk for robeings, &c., .....		5	6
	12th. Paid for dying ye greene gowne and pettycoate .....		6	0
	18th. Paid Mrs. Cousin's bill for ye 2 gowns and pettycoats, &c. ....	2	6	0
	29th. Paid for 3 ells of Hollond, at 6s. ell .....		18	0
	Paid for 2 pr. of cherry collered silk stockings.....	1	4	0
	31st. Paid for $\frac{1}{4}$ a doz. of marble wash balls.....		2	6
	Paid for a qr. of a pd. of pomatum and pott.....		0	8
Sep.	10th. Paid for 2 glasses for ye bird cage.....		2	6
	15th. Paid Mary Lincoln for bringing ye mantoe from Pickadily .....		0	6
	21st. Paid for a strong box.....		3	0
	Paid for cord and paper to pack ye Box up.....		0	5

## MISCELLANEOUS EXPENDITURES.

The following entries, which, like those that precede, have been culled from the household account-book of the Archer family, are presented not so much on account of their statistical value as for the illustrations which many of them furnish of social and domestic life at the period to which they relate. The fact that Mr. Archer, a country gentleman of good estate, gives the cook an extra five shillings "for dressing two dinners" when his tenants "paid their rent at Coopersale," and varying sums for extra trouble on other occasions, indicates a due appreciation of that domestic's position in the household, and suggests that the state of her\* temper may have had something to do with the quality of her dinners. That it was found expedient to treat her with consideration is further indicated by an entry which records the payment to her of 2s. 6d. "for saving the suet." As an incentive to economy, this method was, no doubt, found to be far more effective than verbal exhortations. Indeed, Mr. Archer appears to have found it an incentive to various other virtues, for we find him paying 5s. to Robin and Jack "for coming home sober," 9s. to Tom and Jonathan "for saying their catechism," 8s. to Jonathan and Will "for reading four Sunday nights," 2s. 6d. "to the scolars at Wickham," to encourage them in their studies, no doubt, and 5s. "to Katty for teaching Willy his prayers." One feels a shade of disappointment, however, in finding that on the same day that he makes this last payment he gives 11s. to his brother John "to play at cards." On the 21st of January, 1711, he pays "Betty" £1 1s. 6d. for looking after him "in the small-pox;" on the 27th of the same month he pays 7s. 6d. to a barber for shaving his head; and on the 29th of March he buys a periwig for 19s. Perhaps his illness had led him to serious meditations, for about this time he expends 8s. 6d. "for 3 Whole Dutys of Man," and at sacrament he contributes as much as 10s. for himself and 10s. for his wife, to whom he always refers as "my dear." The following are but a few out of many hundreds of similar entries:

		£	s.	d.
1710.				
June	18. Given to lame soldiers.....	0	2	0
	Given to our tenant's servants.....	0	9	0
	21. To my dear and myself.....	2	3	6
July	6. Given a poor woman.....	0	0	6
	12. Given Mr. Winterton's maid for ye use of ye cradle .....	0	5	0
	Given old Elston's maid and 2 men .....	0	10	0
	Given Goody Top .....	0	2	6
	13. Given her mother.....	0	2	6
	Given ye poor people.....	0	2	6

\* It is not unlikely that the cook was a male, since the record affords no positive evidence to the contrary.

		£	s.	d.
1710.				
July	17.	Given ye ringers at Blakewell.....	1	1 6
		Given Mrs. Buxton's maid.....	0	5 0
	19.	Given at Chatsworth, for seeing ye house.....	0	6 0
	21.	Given to see ye gardens at Chats.....	0	7 6
Aug.	26.	Given Robert Stayley, the fidler.....	0	2 6
	6th.	Given at ye sacrament.....	0	5 0
	7th.	Given a woman as brought a pig.....	0	2 6
	13th.	Given nurse and James for being blooded.....	0	2 0
	15th.	Given Betty for dressing ye dinner.....	0	2 6
		Given Robin for breaking ye horse.....	0	2 6
	23rd.	Given Shepard, ye fidler, and a poor man.....	0	3 0
	25th.	Given Jonathan for reading.....	0	0 6
Sept.	29th.	Given to Parson Firm.....	0	10 0
	8th.	Given to 10 girls as brought a cheese.....	0	4 0
	22nd.	Given ye ringers at Wirksworth.....	0	10 0
	25th.	Given to ye servants at Hopton.....	3	8 3
Oct.		Given more to ye servants.....	0	2 6
	11th.	Given to a maid as brought a pr. of stockings.....	0	2 0
	14th.	Given Annie Twigg for dear little Wm.....	0	5 0
	30th.	Lost at shuffellboard, and given Jack and Tom.....	0	4 0
Nov.	10th.	Given Wm. Bassford for going to Derby, and Jn. Cope for putting out his shoulder.....	0	10 0
1711.				
Jan'y	21st.	Given to Betty for looking after me in the small-pox.....	01	01 06
		Brother Frank's allowance for Oct. last, and Dr. and apothicary money.....	17	04 06
Feb.	27th.	Paid ye barber for shaving my head.....	07	06
	6th.	Paid James, for to buy mourning and liverys and hatts and breeches.....	40	00 00
	8th.	Paid Mrs. Cheveley for to buy mourning for me.....	25	00 00
	12th.	Paid for 2 blunder busses.....	2	00 00
		Paid Frank Fisher for 2 woodco.....	02	00
	21st.	Paid for a suit of cloathes for my dear.....	3	15 00
		Paid for a hatt and lace.....	1	00 00
	25th.	Paid Lovelock, for making my dear's cloaths.....	1	09 00
Mar.	3d.	Paid for 2 turkeys of T. Butcher.....	05	00
	8th.	To Dr. Cook for dear little Will'm.....	*2	03 00
	12th.	Paid for 2 wigs.....	1	12 00
	15th.	Given nurse for looking after d'r Willy when he had ye small-pox.....	1	1 6
	18th.	Given James for buying my horse.....	1	1 6
		Paid for ye horse.....	10	0 0
		Given ye cook for saving ye snet.....	2	6
		Paid Wm. Whitehorn for a s'floyn of beef.....	5	0
	26th.	Paid my sister Carter part of her money, so yt ye interest must not go on.....	50	0 0
	27th.	Paid for ye Queen's tax for Benham.....	13	4
		Paid for 3 Whole Duty's of Man.....	8	6
		Given Robin for selling ye horse.....	2	6
Apr.	29th.	Paid for a perrywig.....	19	0
	1st.	Paid for a hatt for little Willy, and for letters.....	8	00
		Given Mr. Packer's man for a dog.....	5	00
	2d.	Paid John Newton for ye poor's rate to Easter.....	3	4 00
	10th.	Given Johnathau for coming home sober.....	0	1 00
	12th.	Paid for Cambden's Brittain.....	2	10 00
	16.	Paid Edward Young for ye window tax.....	1	5 00
		Given to ye seclars at Wickham.....	2	06
		Paid Jn. Webb ye Queen's tax and gaol money.....	8	9 03
		Paid Mr. White for measuring land.....	1	0 03
	22d.	Given Robin for bringing the writtings safe.....	5	00
	19th.	Given Jn. Cox for cowcumbers.....	2	06
May	20th.	Paid Mr. Web for 16 gossilens.....	1	4 00
		Paid Mr. Lyte for ye 2 guns.....	6	6 03
	23d.	Paid ye women for picking stones.....	1	06
	31st.	Paid Robin for letters and bath waters.....	4	00
June	8th.	Given ye cooper's wife for sitting up with Tom.....	5	00
	11th.	Given Robin and Jack for coming home sober from my cousin Packer's.....	5	00

\* The superfluous cyphers, which appear in the original, are omitted in subsequent, as some have been in preceding, entries.

		£	s.	d.
1711.				
June	11th. Given James for disappointing him when Jack was to go away...	10	0	0
	13. Paid for 2 barrells of gunpowder.....	1	1	6
	24. Given Frank Adams for strawberries.....	2	0	0
	Given Tom and Jonathan for saying their catichism.....	9	0	0
July	11th. Paid for making my br. John's shirts.....	6	0	0
	12. Paid Robin for going down with Strowd to be cured of ye farcy.	4	0	0
	Paid for collyflower.....	6	0	0
	18th. Given where wee dined.....	10	0	0
	Given at Queen's Colledge.....	2	0	0
	Paid for lacing ye men's hatts.....	5	6	
	Paid for ye lace and buttons.....	19	6	
	Given my br. John what he lost at cards.....	11	0	0
	23. Paid Mrs. Webb for 6 ducks.....	2	6	
	30. To the surgeon for letting me blood.....	10	9	
	Paid for a chaire for little Willy.....	6	6	
Aug.	9th. Paid for a sissers case and penknife.....	1	7	0
	Paid for a purse and a pair of buckles.....	1	16	0
	16. Paid for silver buttons for my dear's frock.....	1	12	0
	28. Paid for 2 pair of stays.....	17	12	0
	Paid for 3 seals.....	10	0	0
Sept.	6. Lost at cards and given Jack.....	7	6	
	Given Mr. Dimsdale's man for 2 hares.....	4	0	0
	23. Given James for an apron, and to learn to do up napkins.....	15	0	0
	25. Paid Mary Young for four geese.....	10	0	0
Oct.	12. Given Jonathan and Will for reading four Sunday nights.....	8	0	0
	28. Given ye cook for the parson's supping here twice.....	5	0	0
Nov.	5. Given Humphrey Fisher, now he is ill of the small-pox.....	10	0	0
	Given Jonathan and Will for reading.....	2	0	0
1711.				
	8th. Paid Dr. Cook to return up to London.....	100	0	0
	23. Paid Robin for the cloaths yt were Jack's.....	5	0	0
	Paid for 4 aprons for Betty Mills.....	9	0	0
	Paid Robin for a razor.....	3	0	0
	26. Paid a plumber for a pump to our house.....	2	4	0
	Paid James for his old leather breeches for Jonathan.....	10	0	0
	28. Paid for a bottle of cinnamon water.....	14	6	
Dec.	4. Given Tom to buy him spurs and a whip.....	2	6	
	8th. Paid Richard Kimber for mending odd things.....	2	0	0
	15th. Given Katty for teaching Willy his prayers.....	5	0	0
	Given my br. Jn. to play at cards.....	11	0	0
	18th. Paid the man as brought ye child's stayes from London.....	1	0	0
	19. Paid for bricks to do the washing with.....	10	0	0
	20th. Given the carrier's man for his Xmas-box.....	5	0	0
	Given the cook for dressing 2 diners when the tenants paid their rent at Coopersale.....	5	0	0
	23d. Paid for 4 bottles of wine.....	10	0	0
	Paid for pipes and tobacco.....	1	6	
	Given at ye sacrament, my dear and myself.....	1	0	0
	26. Paid Mr. Pool two small bills he has brought in twice—the carrier of Eping is one, and I don't know ye other.....	18	0	0
	Given old Sole's prentice for his Christmas-box.....	5	0	0

Below are given a number of miscellaneous accounts forming a part of the Halliwell collection :

*A tavern bill, 1675.*

	£	s.	d.
Bread and beere.....	16	4	
Wine and orranges.....	15	4	
A neck and breast of mutton and broath.....	5	0	
A breast of veale.....	4	0	
A shoulder of mutton and sallet.....	3	6	
Six chickens.....	7	6	
Sparrow grasses.....	2	0	
Pocht eggs.....	1	0	
Fyre.....	2	0	
	£2	16	8
To serve.....		5	0

BLACK BOY, CHELMSFORD, May 15th, 1675.

*Mr. John Moore's bill—1676.*

	£	s.	d.
Ye 26th of December.			
Owinge for lodginge.....	16	0	
For a sroude .....	10	0	
Ffor a necke of mutton and all other things .....	7	8	
Ffor flaggetts .....	1	0	
For a barrall of eall.....	1	4	0
For a pound of tobaccokoe and pipes .....	2	6	
For moer drink.....	2	6	
For ye woman searchers .....	1	6	
For links.....	3	0	
Ye porter .....	1	0	
For eall and beer and bred and posset drink in ye tiem of his siknes.....	8	0	
For ye man that lookt after him in his siknes.....	5	0	
Ye washerwoman.....	1	2	
<hr/>			
Ye sum tis .....	4	3	4
The clark's ffees.....		19	0
<hr/>			
Total .....	5	2	4

*Disbursements—1675.*

	£	s.	d.
Aug. 10th. Paid unto John Swallow for mending 2 sutes of clothes of my master's .....	2	8	
17. Given unto Thomas Jackson by my master's order ffor tobaccoc pipes .....	1	2	
21st. Paid unto Mr. Boniface, the barber, for trimming my mr.....	1	6	
25th. Paid for a quarter of a pound of tobaccoc.....	9		
27th. Paid for mending my master's golesshooe .....	2		
Sept. 14. For a letter by the post unto Valentine Broughton.....	3		
Ffor clenne tobacco-pipes .....	2		
Oct. 11th. Paid John Swallow for mending my master's wastecoat and doublett .....	6		
14. Ffor a Gazette.....	1		
Ffor 2 pounds of candles .....	11		
Paid for a bottle of scurry grasse. ....	3		
<hr/>			
Disburs'd in the whole.....	0	17	10

*Bps. Storford—Feb. ye 1st, 1675.*

	£	s.	d.
1 horse 6 nights' hay.....	4	0	
15 bushell of oats.....	2	0	0
One bushell 3 pecks of beens .....	7	0	
Half a bushell of mault.....	1	4	

*Bott off Judith Gresham—No. ye 9, 1706.*

	£	s.	d.
1 pair of shamey gloves .....	3	6	
5 yds. half off fine plain muslin, at 9sh .....	2	9	6
1 white gause handkercheiff.....	3	6	
1 black flann with India sticks.....	4	6	
2 yds. and half off lustring ffor a hood, 7sh .....	17	6	
1 broad crape hood .....	11	6	
1 black girdle .....	1	4	
1 black fferbelo apron .....	15	6	
2 white koles and 3 wiers .....	2	6	
Making 5 sut's of night clothes .....	7	6	
Making 3 pair of double ruffles.....	3	0	
Making 3 long tuckers.....	2	6	
1 white sarsnet hood.....	10	6	
2 yds. of ribin ffor ye apron .....		6	
5 yds. and quarter off muslin ffor 2 heads, and 7 pr. of ruffles .....	1	14	0
Starching the 5 yds. off muslin.....	2	6	
2 yds. 3 quarters off fine lawn.....	1	19	0
4 yds. and half off fine cambrick for a cornet sute.....	3	3	0
4 yds. off muslin ffor 2 aprons .....	1	14	0
Starching ye muslin .....	2	0	

	£	s.	d.
Making ye aprons .....	0	8	6
3 yds. half ell off white Spanish .....		4	9
1 white silk girdle .....		1	4
1 fine stick fan wth gause .....		16	0
6 yds. off white and silver ribin .....	1	13	0
6 yds. off fine plain ground lace, att 44 <sup>sh</sup> .....	13	4	0
6 yds. off plain ground for night cloths, at 28 <sup>sh</sup> .....	8	8	0
4 yds. off lace for ruffles, at 15 <sup>sh</sup> .....	3	7	6
1 yd. and quarter off fine lace for ye bosome .....	17	6	

*Laid out for Madam Archer—1711.*

	£	s.	d.
March 6th. Paid for six bottles of Hungary water .....	0	7	6
19th. Paid for 2 yds. 3 qrs. of plain muslin, at 8s. ye yd .....	1	2	0
27th. Pd. for 3 qrs. and $\frac{1}{4}$ of one striped muslin .....		5	3
28th. Virginia tobaccoe, 12 pd. and a box .....	1	10	4
25th. For making 2 hemed night heads .....		4	0
For makeing 2 day heads, single laps .....		3	4
For makeing 6 hemed tuckers .....		1	6
April 4th. Paid for a past bord box .....		1	$\frac{1}{4}$
14th. Paid for 8 o. and qr. of clowded wosted, at 8d. ye ounce .....		5	6
19th. Paid for a cheese of 12 pd. lack 6 oz .....		3	8
23d. Paid for a pr. of pumpe .....		16	0
24th. Paid for 2 yds. of white sarcnett for a hood .....		6	0
25th. Paid for 2 pr. of shammy gloves .....		7	0
Paid for 5 pr. of black lether gloves .....		6	8
May 13th. For 1,000 of ye best stiff pins .....		1	0
24th. Paid for a duzen of oringes .....		3	0
Paid for a doz. of leamons .....		2	6
June 2d. Paid for a pr. of ereings .....		3	6
July 5th. Paid for a pd. of Bohe tea .....	1	4	0
Paid for a yd. of best black lute string .....		6	6
12th. Paid for 2 new glasses for ye spectacles .....		1	0
15. Paid for 300 of wallnuts to pickell .....		1	0
Paid ye basket woman for bringing ym home .....		1	$\frac{1}{4}$
Paid for ye Christian Hero .....		1	6
15. Paid for boyling ye silver buttons .....			6
Paid for dying ye night gowne lying .....		2	0

*Sir John Newton's bill—1701.*

Bought of James Lund and Lluellin Aspley, at the Crane in the Poultry, March 29<sup>o</sup>, 1701.

	£	s.	d.
1 pair of fine China jarrs, painted with gold .....	1	6	0
1 pair of blew China Roulwaggons .....	1	8	0
4 China chocholet cups and 4 saucers, in colers .....		13	4
2 ditto chocholet cups and 2 two saucers .....		8	0
4 small china bottles .....		3	0
1 china teapot .....		3	0
3 pair bottles and 3 faulty cups .....		2	6
12 delf saucers .....		4	0

1 pair small bottles with gold .....	4	7	10
9 faulty chocholet and tea cups, in colers .....		2	6
		3	0

Agreed to a bolt [abate] for the upper percell .....

4 13 4  
2 10  
4 10 6

*A poullterer's bill.*

	£	s.	d.
Due to me upon the ballance .....		13	10
Decr. 31st. For a lamb and pluck .....		8	0
For side of veal and head, at 2 $\frac{1}{2}$ d. p. pound .....		8	9
For 3 shell ducks and 2 widgions .....		2	10
For dish fish .....		5	0
For 2 turkeys .....		4	6



		£	s.	d.
	For 8 geese.....	0	16	0
	For 200 hundr. oysters.....		4	0
	For a curlew.....			9
Jan. 1st.	For a turkey.....	2	6	
	For 6 pell. buter.....	2	6	
	For eggs.....	2	6	
	Paid for hire of a large tray.....	1	0	
	Paid for looking after ye bacon.....	2	0	
4th.	For 2 ducks and a teal.....	1	11	
6th.	For a dish fish.....	6	3	
	For mustard seed.....	2	0	
	For 4 pullets.....	2	8	
8th.	For 2 teal.....	4	0	
		£4 16 0		

*Christmas boxes, 1711.*

Reed. 16 06.

		s.	d.
December 26th.	Watchman, waits, turncock, and brewer's men, each.....	2	6
	Dustman.....	2	0
	3 baker's men, coachmaker's man, newswoman, cornchandler's man, the post, gardner's man, and clerk, each.....	1	0
	Chimney-sweeper.....		6
	Butcher's man, saddler's man, tayler's boys, locksmith's men, farrier's man, foreign postman, and Mr. Gover's son, each.....	1	0
		14 0	

*Work dun for Mrs. Ann Pegg Oct. ye 10th, 1706.*

		£	s.	d.
	Washing a suite of night-cloas and ruffles.....	0	0	5
	Washing two heads, 6d.; one sheet of pines, 4d.....	0	0	10
	Quarter and $\frac{1}{2}$ of holand for 2 pr. of mittins.....	0	1	8
	3 yards $\frac{1}{2}$ of riben, 2d., to bind ym.....	0	0	10
	Washing a suite of night cloas.....			3
	2 yds. $\frac{1}{2}$ ell of scarlet edging, 6 yd. for her workt.....	1	3	$\frac{1}{2}$
	A black silk apron 4/6; sawing silk, 2d.....	4	8	
	$\frac{1}{2}$ of an ounce of thred, 2 $\frac{1}{2}$ needles, 2d.....			4 $\frac{1}{2}$
	Washing and dresing her best lacet head and ruffles.....			10
	2 yds. $\frac{1}{2}$ of white riben, 13d. yd.....	4	3	$\frac{1}{2}$
	A black and white fann, 14d.; a paper of patches.....	1	8	
	$\frac{1}{2}$ ell of black riben, 3 powder.....			5 $\frac{1}{2}$
	4 yds. of yellow riben, 2d. yd.; 3 nailles of broad $\frac{1}{2}$ .....			10
	3 halfe sheets of pines.....	1	0	
	Washing and dresing a plane head and ruffles.....			8
	5 nailles of stript cambrick 10d. yd.....	3	1	$\frac{1}{2}$
	Making, starching, and dresg. her night cloas.....	1	4	
	Making and starching her ruffles, 6d.; tape, 1d.....			7
	2 yds. of black and white riben, 17d. yd.....	2	10	
	Making one shift, one apron, and 3 tuckers.....			10
	yd. $\frac{1}{2}$ of muslin in an apron 4/6 yd.....	5	0	$\frac{1}{2}$
	$\frac{1}{2}$ and $\frac{1}{2}$ of spotted cambrick for single ruffles.....	1	10	$\frac{1}{2}$
	5 nailles of plane muslin for tuckers, and one pr. of ruffles.....	1	8	$\frac{1}{2}$
	Holand tape for shifts, tuckers, and apron.....			4
	Washing and dresing 2 heads, 12d.; washing a suite of nitcloas, 3d.....	1	3	
	Washing and dresing a head and 4 pr. of ruffles.....	1	2	
	Washing 2 suites of night-cloas.....			6
	$\frac{1}{2}$ a sheet of pines 3d.; washing and dresing a head, 6d.....			9
	Washing a suite of night-cloas, 3d.; and $\frac{1}{2}$ pd. of powder.....			5
	Washing and dresing yr. best head and ruffles.....			10
	Washing and dresing a plane head, 6d.; one sheet of pines, 6d.....	1	0	
	Washing her 2-stript night-cloas and ruffles.....			6
	Washing 2 suites of plane night-cloas, 6d.; thred 2 $\frac{1}{2}$ .....			8 $\frac{1}{2}$
		2 4 11		

The following "mem'm" may interest the merchants of Boston, showing as it does the kinds of goods most in demand 168 years ago. The statement that "goods well bt. in London will fetch 140 to 150 p. c. advance" will cause regret that "ye good old times" have passed away :

*Mem'm of the most staple goods in general at Boston, in New Eng<sup>d</sup>, ye 4th 8ber, 1706.*

Double damasks, mock, do., but few, if any, toyes, and all other fashionable stuffs for women's wear.

Rosel damasks, sort'd, viz, a few with red and white flowers, most of blue and white, and a few grave, modest coulours.

Black crapes, wch. cost abt. 40 or 45 apce. ; most of the former.

Shalloones, sorted, viz, blue, red, and lemo. colr., pretty fine, and other graver, fashionable coulours, and some black.

Crossed serges, wch. cost abt. 35/apce., first cost.

Duffels of a good steel blue, and no other coulours.

Flannels sorted, viz, some yellow, some blue and red, most white, and some of them must be fine, from 13 to 18 per yard, first cost.

Welch and Kendal cottons, blue, red, and a few white.

Some druggets of grave coulours.

Some sad could. serges, mixt. wth. blue and white, of 1½ yd. wide.

Low-priced cloths, of a drab coul., from 5/ to 8/ cost; most of the former.

Wide britches-ticking, with fine, narrow, bright-blue stripes; ; narrow, ditto.

English and Dutch checks, few of them high priced.

Stroud waters, blue and red; most of the former; costs 2/6 or 3/ pr. yd.

A coarse sort of calicoes, abt. ½ ell wide, flowd. with red and white flowers, and some with the same flowers of 1½ or yard wide.

Ozenbrigg's white and browne.

Plain muslins of different finenesses, shaded, of 1½ yard wide.

Shear muslins, fit for headdresses and neckcloths.

Striped muslins, a few.

Low priced hollandes to sell here for abt. 3 to 5 an ell.

Hambro dowlasse of different finenesses.

A sortable parcel of pinns packt. up by themselves in barrls. or trunks.

Gold and silver thread and twist.

Silke gloves, bla. and could.

Bla. silke gauze.

Silke and thread laces.

Mohair coate and breast buttons; halfe of the latter, and of each some black.

Broad and narrow gartering.

Broad and narrow alamode is still much wanted; ye last sold was at 12/per ell.

Ordinary writeing-paper costs about 5/ or 6/ a reame.

A sortmt. of fashionable flowd. silkes, from 4/ to 6/6, or 2/a yard cost, will sell well all ye summer, wth. some good bla. flowd. silke amongst it.

A parcel of the best and largt. wool-cards, halfe thicks, blue, red, and sad coulours; 2/3 of the former.

Hollandes duck is worth here £7 to £7 10/, more or less, as in goodness.

Cordage sorted as pr. memo. 70/per c. here.

Powder is worth here £14 a barrl.

Ambros Crowley's nailes sorted as hereafter mentioned.

Scythes and sickles of the best makers', good goods.

Spanish iron, worth here £40 per pr. tun.

Swedes, ditto, £34 to £35 per tun.

Lead, in piggs, £25 pr. tun.

Lead, in barrs, worth £26 to 27 pr. c.

Shott, sorted, vizt, goose, one-halfe; ye other ½, duck, pigeon, and bird, is now scarce worth upwards of £30 pr. tun.

Grocery-ware, vizt, raisins, solis, new, and in half barrils, £5 10 pr. c. here.

Current and figgs in ye caskes are imported in if possible.

Spice, sorted, vizt, 100 lb. of nutmegs, 25 lb. of cloves, 6 lb. of mace, 5 cwt. of pepper in small caskes, worth here now 3/4per lb.

A parcel of hatts, sorted, vizt, elts and castors, cloth or Carolina hatts.

NOTE.—What goods have no price affixt to them will fetch here (being well bt. in Londo.) 140 to 150 p. advance, and more, if any particulars happen to be extraordinarily wanted when they arrive.

## THE ERA OF MACHINERY.

The inventions which distinguished the latter part of the eighteenth century inaugurated a new era in productive industry. The new devices for spinning, already referred to, were used at first in connection with water-power; but it was not long before the steam-engine was brought into requisition to give them increased efficiency and a wider sphere of operation. Once successfully applied to the moving of machinery, this great motor seemed to stimulate the inventive faculties of man to preternatural activity; and one labor-saving device was quickly followed by another, until a great proportion of all manufacturing industry, was largely performed by the aid of machinery.

This great change in the methods of production—a change which has progressed steadily from the latter part of the last century to the present time—was inaugurated in Great Britain, and it was there that the new system received its earliest and most signal development. Augmenting to a prodigious extent the aggregate product of labor,\* it necessarily gave rise to a vast increase in the aggregate wealth of the community; and in this increase the working-classes have undoubtedly shared to a considerable extent, though in a degree not at all comparable to that in which the wealthier classes have been benefited. Indeed, each new application of machinery was a source of temporary inconvenience, or even of severe distress, to the particular class of workmen whose manual labor it superseded.

But the most important bearing of the new methods of production upon the relations between labor and capital and the condition of the working-classes grew out of the necessity which they created for associated industry, and for large establishments, carried on by accumulated capital. Nowhere is this more forcibly illustrated than in the manufacture of textile fabrics, which from time immemorial had been in an eminent degree a household industry. The language of Wordsworth—

"Maids at the wheel, the weaver at his loom,  
Sat blithe and happy"—

would doubtless have answered almost equally well to describe an ancient Egyptian household in the era of the pyramids, or the occupations of an ordinary Lancashire family in the middle of the eighteenth century. Almost every farm-house and cottage in the manufacturing districts of England had its spinning-wheel,† which furnished in-door occupation for women and children, while the men were engaged in the labors of the field. The invention of the fly-shuttle in 1738 had very much increased the rapidity with which weaving could be done, and the business of spinning was thus stimulated to great activity, the earnings of spinners being unprecedentedly large. While the textile industries were in this condition Hargreaves invented the spinning-jenny,‡ and Arkwright the spinning-frame, sometimes called the water-frame or throstle;§ and a few years later these were followed by a still more elaborate machine,|| in which the operations of both of them were combined. So great was the superiority of the new machines that the old-fashioned

\* It is calculated in Kennedy's "Rise and Progress of the Cotton Trade" that, as early as 1815, one person, aided by machinery, could produce as much as two hundred cottage spinners could have produced in 1760.

† In many cases several.

‡ About 1764.

§ Patented in 1769.

|| The "mule," invented by Samuel Crompton in 1775.

wheel was quickly banished from the field of competition, and spinning, as a household industry, was practically at an end. Weaving, however, still held its place, and was even stimulated to extraordinary activity by the rapid increase in the product of yarn which followed the inventions just referred to. In the manufacturing districts of Lancashire, barns and other out-buildings were quickly converted into loom-shops; and when these no longer sufficed to meet the new demand, weavers' cottages, with loom-shops attached, arose on every side. The era, however, was one of rapid change, and ere long the power-loom, worked by water or steam, began to compete with the hand-loom. The wages of weavers, which under the first impulse communicated by the new spinning-machinery had risen to an unusual height and attracted large numbers to the business, gradually sank to a pittance, scarcely sufficient to afford the workpeople the most wretched subsistence.

The triumph of machinery, however, had been only a question of time. In weaving, as in spinning, separate domestic industry was compelled to give place to collective industry in large establishments. The workman who had pursued the even tenor of his way at his own loom, and the housewife who had plied her busy task over the wheel at her own fireside, were compelled by the force of irresistible circumstances to take their places along with hundreds of others in "the mill," and to regulate their hours of labor, as well as their meals and their hours of rest, by the sound of its peremptory bell.

The concentration of capital, which was necessary to the prosecution of manufacturing industry under the new system, was greatly facilitated by the high prices which manufacturers at first obtained for their products. "Yarn of a quality which in 1815 was sold for three shillings a pound brought in the infancy of the manufacture as high as thirty shillings. The British mulled muslins which, when first manufactured, were eagerly bought up by the rich at \$2.50 a yard, are now offered to the poor—of less durable quality, however—for six cents a yard.\*" So it must have been in many other industries, for the public were accustomed to the prices they had paid for the products of manual labor, and these the manufacturers could readily undersell, while retaining an enormous profit for themselves. It was not till machine-made goods had taken possession of the market that the competition between rival manufacturers brought prices down to a proper level and gave the consumer a reasonable share in the reduced cost of production. In the mean time vast fortunes had been rapidly accumulated, and to the new capital thus made available for manufacturing purposes was added that which enterprises yielding such magnificent pecuniary results attracted from every side. Thus the industrial revolution inaugurated by Watt, in conjunction with Hargreaves, Arkwright, and Crompton, gained added impetus with each year's progress, and with marvelous rapidity produced its transforming effects upon economic and social conditions.

The comprehension of the nature and effects of that revolution will greatly facilitate a correct understanding of the labor question of the present day. Indeed, it is out of that revolution mainly that the labor question in its present form has grown. It has already been remarked that the new methods of production created a necessity "for associated industry and for large establishments carried on by accumulated capital." The full significance of this fact may not at once be apparent, but a little reflection will make it so. By "accumulated capital," as just used, is meant masses of capital vastly in excess of the average posses-

\* Autobiography of R. D. Owen, p. 13.

sions of individuals, even in the most prosperous communities—masses so large that the possession of one such mass by any individual implies, as its necessary counterpart, the comparative poverty of scores or even hundreds of others, and their dependence upon the one for employment.

When industry was carried on in small separate establishments, a steady and industrious workman might reasonably hope to accumulate the means of setting up in business for himself, and thus the workman of this year might next year be numbered among the employers. Theoretically this is so still, for it is a common boast in our own country, at least, that the avenues to wealth and the honors of official life are open to all. Circumstances, however, are sometimes stronger than the laws, and inexorably deny what the laws very freely permit. It is quite evident that the number of industries which may be prosecuted by separate individuals on a small scale, and which may be started with such an amount of capital as a working-man can save out of his wages, is now comparatively small, and that it is steadily diminishing as the sphere of machinery extends. One may still see the shoemaker's shop, with its modest array of tools and its little stock of leather, representing a total capital of a few hundred dollars, or even less; but the sphere of such shops is now comparatively limited, and the proportion of boots and shoes made by machinery in large factories is increasing year by year. In like manner one may still see the shop of the blacksmith, the wheelwright, the carpenter, and the cabinet-maker; but in all of these and in other trades, the amount of work executed in large establishments by the aid of machinery is immense, and is constantly augmenting.

It is hardly necessary to say that this is not referred to as a thing to be regretted. The vast increase in man's productive powers which machinery has brought with it is an incalculable blessing; it would not be wise, however, to close our eyes to the incidental evils—temporary in their character, it is to be hoped—by which this blessing is accompanied. The alarmists who imagined that machinery, by doing the work which had been done by human hands, would leave the hands without employment were not long in learning from experience and observation how groundless were their fears. What machinery has done is not, if we except occasional temporary consequences of its introduction, to deprive men of employment, *but to change the conditions under which they work*. Except in the co-operative enterprises, which within a few years past have been successfully carried out, its effect has been to divide all that large portion of society employed in connection with it into two distinct and, in respect to their circumstances, widely separated classes, the one consisting mainly of a few very rich employers, the other embracing a multitude of employés, who, if not absolutely very poor, are at least extremely poor in comparison with the members of the other class.

This wide contrast of conditions is probably one of the causes of the discontent of the working-classes; but the principal cause, both of this discontent and of their aggressive attitude toward capital, is to be found in the fact that to the great mass these conditions appear to be practically permanent. The journeyman mechanic who could see a prospect that within ten years he might himself become the owner of a shop was not disposed to feel or act unkindly toward a class of which he hoped so soon to become a member, viz, toward the employers; but to the operative the possession of a factory is a thing so remote from probability that it scarcely enters into his wildest dreams of future success. So it is in all the industries carried on in those great establish-

ments, against which the competition of little shops, in any extended sphere, is each year becoming more difficult.

It is thus that machine-labor has imparted to the great body of the working-people the cohesion and the common sentiments of a permanent class apart from the class of employers. But while it has thus furnished the occasion for their combination in defense of their common interests, it has at the same time contributed in another way to render that combination powerful and efficient. By creating gregarious industry and greatly extending the sphere of urban life, it afforded to the working-classes enlarged opportunities for mutual intercourse, and thus gave rise to an unwonted degree of intellectual activity. The result has been a marked increase in popular intelligence and a corresponding improvement in the methods and purposes of combination among workmen. The breaking of machinery and the "ratting" of workmen not connected with trades-unions are now happily becoming comparatively rare, and mutual benefit, such as relief out of society funds in sickness or old age, together with co-operation, is attracting an increasing share of the attention of the working-class. There is reason to hope that the last-mentioned form of combination may yet afford the means of reconciling machinery and associated labor with that personal independence which they at first seemed likely to place quite beyond the reach of the mass of workmen. By the union of many small sums, associations of workmen may succeed in forming out of their own earnings those aggregations of capital which are necessary to the prosecution of industry with the aid of the best modern appliances. If they can do this and also supply out of their own ranks efficient oversight and business management, the great capitalist, towering among his operatives like a mountain among hillocks, will cease to be an industrial necessity.

But the consideration of this subject, co-operation, as well as of trades-unions and strikes, must be postponed until something has been said of the more immediate effects of the factory system during the earlier period of its development, and of the public questions and legislative measures to which those effects gave rise. Upon these points the Duke of Argyle, in Chapter VII of his "*Reign of Law*," presents some highly-interesting facts and reflections. After observing that the factory system began under the old motive-power of water before the steam-engine was made available, he continues as follows:

Very soon the course of every mountain stream in Lancashire and Yorkshire was marked by factories. This again had another consequence. It was a necessity of the case that such factories must, generally, be situated at a distance from pre-existing populations, and, therefore, from a full supply of labor. Consequently they had to create communities for themselves. From this necessity, again, it arose that the earlier mills were worked under a system of apprenticeship. The due attendance of the requisite number of "hands" was secured by engagements which bound the laborer to his work for a definite period.

And now, for the first time, appeared some of the consequences of gregarious labor under the working of natural laws, and under no restrictions from positive institutions. The mill-owners collected, as apprentices, boys and girls, youths and men, and women, of all ages. In very many cases no provision adequate, or even decent, was provided for their accommodation. The hours of labor were excessive. The ceaseless and untiring agency of machines kept no reckoning of the exhaustion of human nerves. The factory system had not been many years in operation when its effects were seen. A whole generation were growing up under conditions of physical degeneracy, of mental ignorance, and of moral corruption. The first public man to bring it under the notice of Parliament with a view to remedy, was, to his immortal honor, a master-manufacturer, to whom the new industry had brought wealth, and power, and station. In 1802 the elder Sir Robert Peel was the first to introduce a bill to interfere by law with the natural effects of the unrestricted competition in human labor. It is characteristic of the slow progress of new ideas in the English mind, and of its strong instinct to adopt

no measure which does not stand in some clear relation to pre-existing laws, that Sir Robert Peel's bill was limited strictly to the regulation of the labor of apprentices. Children and young persons who were not apprentices, might be subject to the same evils, but for them no remedy was asked or provided. The notion was, that as apprentices were already under statutory provisions, and were subjects of a legal contract, it was permissible that their hours of labor should be regulated by positive enactment. But the Parliament which was familiar with restrictions on the products of labor, and with restrictions of monopoly on labor itself—which restrictions were for the purpose of securing supposed economic benefits—would not listen to any proposal to regulate "free" labor for the purpose of avoiding even the most frightful moral evils. These evils, however great they might be, were the result of "natural laws," and were incident to the personal freedom of employers and employed. In the case of apprentices, however, it was conceded that restrictions might be tolerated. And so, through this narrow door the first of the factory acts was passed. It is a history which illustrates, in the clearest light, the sense in which human conduct, both individually and collectively is determined by natural law. If Watt's steam-engine had been invented earlier—if mills had not been at first erected away from the centers of population, in order to follow the course of streams—if, consequently, the evils of the factory system had not begun to be observable in the labor of apprentices, there is no saying how much longer those evils might have been allowed to fester without even an assertion of the right to check them. The act of 1802,\* though useless in every other sense, was invaluable at least in making this assertion.

Meanwhile Watt's great invention had been completed. And now a new cycle of events began. When the perfected steam-engine became applicable to mills, it was no longer always cheaper to erect them in rural districts; on the contrary, it was often cheaper to have them in the towns, near a full supply of labor and a cheap supply of fuel. With this change came the abandonment of the system of apprenticeship. It was now "free" labor which more and more supplied the mills. But this only led to the same evils in an aggravated form. Children and women were especially valuable in the work of mills. There were parts of the machinery which might be fed by almost infant "hands." The earnings of children became an irresistible temptation to the parents. They were sent to the factory at the earliest age, and they worked during the whole hours that the machinery was kept at work. The result of this system was soon apparent. In 1815, thirteen years after he had obtained the act of 1802, Sir Robert Peel came back to Parliament and told them that the former act had become useless; that mills were now generally worked not by water, but by steam; that apprentices had been given up, but that the same exhausting and demoralizing labor from which Parliament had intended to relieve apprentices was the lot of thousands and thousands of the children of the free poor. In the following year, 1816, pressing upon the House of Commons a new measure of restriction, he added that unless the legislature extended to these children the same protection which it had intended to afford to the apprentice class, it had come to this, that the great mechanical inventions which were the glory of the age would be a curse rather than a blessing to the country. These were strong words from a master-manufacturer, but they were not more strong than true.†

\* 42 and 43 George III, cap. 73.

† Prominent among those who labored to bring these evils to the attention of Parliament and the country was Robert Owen, himself a wealthy and successful manufacturer, though more widely known at a later period for his extreme opinions on social questions. His son, in his recently published volume entitled "Threading My Way," gives the following account of his observations during a journey which he made with his father through England and Scotland in 1815 for the purpose of collecting evidence touching the condition of children employed in the cotton, woollen, linen, and silk factories of the kingdom:

"The facts we collected seemed to me terrible almost beyond belief. Not in exceptional cases, but as a rule, we found children of ten years old worked regularly fourteen hours a day, with but half an hour's interval for the mid-day meal, which was eaten in the factory. In the fine-yarn cotton-mills, (producing from 120 to 300 hanks to the pound,) they were subjected to this labor in a temperature usually exceeding 75°; and in all the cotton-factories they breathed an atmosphere more or less injurious to the lungs because of the dust and minute cotton fibers that pervaded it.

"In some cases we found that greed of gain had impelled the mill-owners to still greater extremes of inhumanity, utterly disgraceful, indeed, to a civilized nation. Their mills were run fifteen, and, in exceptional cases, sixteen hours a day, with a single set of hands; and they did not scruple to employ children of both sexes from the age of eight. We actually found a considerable number under that age.

"It need not be said that such a system could not be maintained without corporal punishment. Most of the overseers openly carried stout leather thongs, and we frequently saw even the youngest children severely beaten.

Thus began that great debate which in principle may be said to be not ended yet—the debate, how far it is legitimate or wise in positive institutions to interfere for moral ends with the freedom of the individual will. Cobbett denounced the opposition to restrictive measures as a contest of “mammon against mercy.” No doubt personal interests were strong in the forming of opinion, and some indignation was natural against those who seemed to regard the absolute neglect of a whole generation, and the total abandonment of them to the debasing effects of excessive toil, as nothing compared with the slightest check in the accumulations of the warehouse. But the opposition was not in the main due either to selfishness or indifference. False intellectual conceptions, false views, both of principle and of fact, were its real foundation. Some of the ablest men in Parliament, who were wholly unaffected by any bias of personal interest, declared that nothing would induce them to interfere with the labor which they called “free.” Had not the working-classes a right to employ their children as they pleased? Who were better able to judge than fathers and mothers of the capacities of their children? Why interfere for the protection of those who already had the best and most natural of all protections? Such were some of the arguments against interfering with free labor.

Now, in what sense was this labor free? It was free from legal compulsion; that is to say, it was free from that kind of compulsion which arises out of the public will of the whole community, imposed by authority upon the conduct of individuals. But there was another kind of force from which this labor was not free—the force of overpowering motive operating on the will of the laborers themselves. If one parent, more careful than others of the welfare of his children, and moved less exclusively by the desire of gain, withdrew his children at an earlier hour than others from factory-work, his children were liable to be dismissed and not employed at all.”

On the other hand, motives hardly less powerful were in constant operation on the masters. The ceaseless, and increasing, and unrestricted competition among themselves, the eagerness with which human energies rush into new openings for capital, for enterprise, and for skill, made them, as a class, insensible to the frightful evils which were arising from that competition for the means of subsistence, which is the impelling motive of labor.

Nor were there wanting arguments, founded on the constancy of natural laws, against any attempt on the part of legislative authority to interfere with the “freedom” of individual will. The competition between the possessors of capital was a competition not confined to our own country. It was also an international competition. In Belgium, especially, and in other countries, there was the same rush along the new paths of industry. If the children’s hours of labor were curtailed, it would involve of necessity a curtailment also of the adult labor, which would not be available when left alone. This would be a curtailment of the working-time of the whole mill; and this would involve a corresponding reduction of the produce. Outside of certain limits this is not by any means a necessary inference. No similar reduction of produce would arise in foreign mills. In competition with them the margin of profit was already small. The diminution of produce, from restricted labor, would destroy that margin. Capital would be driven to countries where labor was still free from such restrictions, and the result would be more fatal to the interests of the working-classes of the English towns than any of the results arising from the existing hours of work. All these consequences were represented as inevitable. They must arise out of the operation of invariable laws.

“We sought out the surgeons who were in the habit of attending these children, noting their names and the facts to which they testified. Their stories haunted my dreams. In some large factories from one-fourth to one-fifth of the children were either cripples or otherwise deformed, or permanently injured by excessive toil, sometimes by brutal abuse. The younger children seldom held out more than three or four years without severe illness, often ending in death.

“When we expressed surprise that parents should voluntarily condemn their sons and daughters to slavery so intolerable, the explanation seemed to be that many of the fathers were out of work themselves, and so were, in a measure, driven to the sacrifice for lack of bread; while others, imbruted by intemperance, saw with indifference an abuse of the infant faculties compared to which the infanticide of China may almost be termed humane.

“In London my father laid before several members of Parliament the mass of evidence he had collected, and a bill which he had prepared forbidding the employment in factories of child workers under twelve years of age, and fixing the hours they might be employed at ten a day. Finally he obtained from the elder Sir Robert Peel a promise to introduce this humane measure in the House of Commons. . . . The bill dragged through the house for four sessions, and when passed at last it was in a mutilated and comparatively valueless form.”

“This was very forcibly explained, both by Sir Robert and by his son, Mr. Peel, in the debate of February 23, 1818.



Such were the arguments, urged in every variety of form and supported by every kind of statistical detail, by which the first factory acts were vehemently opposed.

And, indeed, in looking back at the debates of that time we cannot fail to see that the reasoning of those who opposed restriction on free labor met with no adequate reply. Not only were the supporters of restriction hampered by a desire to keep their conclusions within the scope of a very limited measure; not only were they anxious to repudiate consequences which did legitimately follow from their own premises, but they were themselves really ignorant of the fundamental principles which were at issue in the strife. Their conclusions were arrived at through instincts of the heart. The pale faces of little children, stunted and outworn, carried them to their result across every difficulty of argument and in defiance of the alleged opposition of inevitable laws. And yet, if the supporters of the factory acts had only known it, all true abstract argument on the subject was their own. The conclusions to which they pointed were as true in the light of reason as they felt them to be true in the light of conscience.

The debate resulted in the passage of the act of 1819, (59 Geo. III, c. 66,) which, being the first measure restricting the labor of unapprenticed children, was, properly speaking, the first of the factory acts. This act, however, as well as one passed in 1825, remained practically a dead letter for want of adequate enforcing clauses, and it was not until the passage of Lord Ashley's bill in 1833, establishing a stringent system of government inspection, that any progress was made in mitigating the evils which the factory system had developed. Speaking of Manchester in 1832, Sir J. P. K. Shuttleworth says:

The population employed in the cotton factories rises at 5 o'clock in the morning works in the mills from 6 till 8, and returns home for half an hour or forty minutes to breakfast. This meal generally consists of tea or coffee, with a little bread. The tea is almost always of a bad, and sometimes of a deleterious quality. The operatives return to the mills and workshops until 12 o'clock, when an hour is allowed for dinner. Among those who obtain the lower rate of wages this meal generally consists of boiled potatoes. The mess of potatoes is put into one large dish, melted lard and butter are poured upon them, and a few pieces of fried fat bacon are sometimes mingled with them, and, but seldom, a little meat. Those who obtain better wages add a greater proportion of animal food to this meal at least three times in the week, but the quantity consumed by the laboring population is not great. The family sits around the table, and each rapidly appropriates his portion in a plate, or they will plunge their spoons into the dish, and with an animal eagerness satisfy the cravings of their appetites.

The population nourished on this aliment is crowded into one dense mass in cottages separated by narrow, unpaved and almost pestilential streets, in an atmosphere loaded with smoke, and the exhalations of a large manufacturing city. The operatives are congregated into mills and workshops during twelve hours in the day, in an enervating, heated atmosphere, which is frequently loaded with dust or the filaments of cotton, or impure from constant respiration, or from other causes. They are drudges who watch the movements and assist the operations of a mighty material force, which toils with an energy ever unconscious of fatigue. The state of the streets powerfully affects the health of their inhabitants; sporadic cases of typhus chiefly appear in those which are narrow, ill-ventilated, unpaved, or which contain heaps of refuse of stagnant pools.

The following passages, referring to the same subject, are taken from a small volume on the Progress of the Working-Class, the joint production of Messrs. J. M. Ludlow and Lloyd Jones:

Let it be recollected that the evils of such a state of things pressed no less on the weak woman, the helpless child, than on the man. "From the whole of the evidence laid before us," say the commissioners of 1832, "we find first, that the children employed in all the principal branches of manufacture throughout the kingdom work during the same number of hours as the adults." "In some rare instances," they say elsewhere, "children begin to work in factories at five years old. It is not uncommon to find them there at six. Many are under seven, still more under eight; but the greatest number are under nine. Form sheer fatigue, the poor creatures would go supperless to bed, be unable to take off their clothes at night, or to put them on in the morning. Pains in the limbs, back, loins, and side," say the commissioners, "are frequent. The frequency and severity of the pain uniformly bear a strict relation to the tender age of the child and the severity of the labor. Girls suffer from pain more commonly than boys, and

up to a more advanced age." Again, "The effects of labor during such hours are in a great number of cases permanent deterioration of the physical constitution, the production of disease wholly irremovable, and the partial or entire exclusion (by reason of excessive fatigue) from the means of obtaining adequate education and acquiring useful habits, or of profiting by those means when afforded."

"The deformities produced," says Mr. Robert Baker, one of the inspectors of factories, who, from 1828 to 1832, was, as a medical practitioner in Leeds, professionally engaged in the daily and nightly visitation of several factories, "consisted of in-knee, flat-foot, and curvature of the spine. The first of these deformities was familiarly known in the manufacturing districts as the 'factory leg.' There was scarcely a thoroughfare in any of them where they were not to be seen." Another gentleman whom he quotes, Mr. S. Smith, senior surgeon of the Leeds Infirmary, says: "In 1832 I had frequent occasion to pass through a district at noon, when the hands were leaving work for dinner. A large majority of them were pale, thin, emaciated, down-hearted looking creatures, showing no disposition to mirth and cheerfulness. At the proper age the hips were wide but sharp and angular, the shoulders pointed, the head not held up, but a considerable stoop."

That an education worthy of the name was impossible for a population under such conditions, results avowedly from the statements of the commissioners of 1832. Factory-workers were in those early days, for the most part, grossly ignorant. Even the fine spinners, who were the best paid, were only distinguished from the rest by their extravagant riotousness.

Ignorant themselves, what wonder if they cared little to educate their children, saw in them too often only instruments for money-making—means of self-indulgence. Hideous instances might be quoted from the blue-books of the driving of mere infants to the mill by their parents, simply that they might live in riotous idleness out of the fruit of their children's earnings. But the first great struggle of the factory-reformers was less for education than for its necessary condition—the relaxation of overtoil for the child—and hence the former subject appears only in a subordinate rank among the grievances detailed in the earlier reports. What, in fact, education must have been in 1832, appears thus best from such documents as the reports of the inspectors of factories from 1839 to 1843, when overwork was to some extent stopped, and the educational machinery of the factories acts was already in operation. Thus, in 1843, Mr. Leonard Horner was able to report that in an area of eight miles by four, comprising the large borough of Oldham and that of Ashton, for a population of 105,000, there was not, at the date of his then last quarterly report, one public day-school for the children of the humbler ranks.

What were the amusements of the masses thus overworked, ill-fed, ill-housed, left for the most part uneducated? Large numbers of working-people attended fairs and wakes, at the latter of which jumping in sacks, climbing greased poles, grinning through horse-collars for tobacco, hunting pigs with soaped tails, were the choicest diversions. An almost general unchastity—the proofs of which are as abundant as they would be painful to adduce—prevailed among the women employed in factories, and generally throughout the lowest ranks of the working population. But drink was the main spring of enjoyment. When Saturday evening came, indulgences began, which continued till Sunday evening. Fiddles were to be heard on all sides, and limping men and pale-faced women thronged the public houses, and reeled and jiggered till they were turned, drunk, and riotous, into the streets at most unseasonable hours. On the Sunday morning the public houses were again thronged, that the thirst following the indulgence of the night might be quenched. When church hour approached, however, the church-wardens, with long staves tipped with silver, sallied forth, and, when possible, seized all the drunken and unkempt upon whom they could lay their hands, and these, being carefully lodged in a pew provided for them, were left there to enjoy the sermon, while their captors usually adjourned to some tavern near at hand for the purpose of rewarding themselves with a glass or two for the important services they had rendered to morality and religion. In fact, sullen, silent work, alternated with noisy, drunken riot, and Easter and Whitsuntide debauches, with an occasional outbreak during some favorite "wakes," rounded the whole life of the factory worker.

The ordinary artisan of the workshop at the same period is described as a far different man, having had more education in childhood, and more time for study after commencing a trade. Still, he was apt to be intemperate, and in the highest-priced trades many men only began their week on a Thursday. Nevertheless, there were many good influences to be found in the workshop. "There were grave men, who employed their leisure hours in reading or study; entomologists, florists,

botanists, students in chemistry and astronomy; men there were—politicians, dabblers in theology—who, when work was not actively on foot, kept the conversation among their fellows from sinking into inanity or vice, or who discouraged such practical joking as was mischievous or painful. But these men were exceptional, and sometimes, notwithstanding their studies, they were as fond of a glass as their most graceless neighbors.” \* \* \*

“Moreover, as invention after invention brought new trades into the factory system, as the war of competition raged fiercer and fiercer, the numbers of these outlying trades were becoming always fewer and weaker in the midst of the swelling mass of factory workers; and if the strenuous efforts of many of them tended to pull that mass up, its weight was, in turn, always tending to drag them down.”

But with the reform acts of 1832, and Lord Ashley's measure in regard to factories in 1833, there commenced an era of improvement. It would be interesting to trace the history of British legislation, in regard to labor and the laboring class, from that time to the present, but this would be too long a task. The following passage, however, from the work of Messrs Ludlow & Jones, already cited, will serve, without specifying particular laws or the dates of their passage, to give a good idea of the aggregate of legislative work in the interest of the class under consideration which was accomplished by the British Parliament between the years 1832 and 1867 :

The reform acts of 1832 found the factory workers, under twenty-one, in the cotton trade, only protected from night-work between 8.30 p. m. and 5.30 a. m.; those under eighteen restricted to twelve hours' labor, or nine on Saturdays; children under nine forbidden to be employed. Eighteen hundred and sixty-seven sees the workers in all the leading branches of our textile industry, cotton, woolen, worsted, hemp, flax, tow, linen, silk, when worked under steam power, enjoying the reduced hours of ten and a half a day, with a Saturday half-holiday after 2 p. m. If children are allowed to work at eight years of age, provision is made for their education. Various other branches of industry, such as print-works, bleach and dye works, and lace factories, and processes connected with the protected manufactures, have been brought, with slight variations of detail, into the system; and finally, though by a measure which has not yet had time to produce any effects on a large scale, a number of other manufactures and employments; whilst an efficient system of inspection has been instituted to see the system carried out.

The reform acts of 1832 found our mines and collieries worked, in great measure, by women and children—those degraded, those crushed by the labor. Eighteen hundred and sixty-seven sees female underground labor absolutely prohibited, as well as boy labor unless educated, in coal or connected iron-stone mines, under ten; otherwise, both in these and in all other mines, under twelve; whilst here also a system of inspection is at work, powerfully aided by the independent action of the workers themselves.

To say nothing of chimney-sweepers and bakers, the reform acts of 1832 found our sailors almost without protection in purse, health, or safety. Eighteen hundred and sixty-seven finds a vast code in existence which endeavors to secure all three; and although palpably insufficient in many respects, (especially through the exclusion of the coasting trade from various of its provisions,) shows at least a vast advance in public consideration for the merchant seamen.

The legislation in force in 1832, allowed the working classes no banking facilities except through the pawnbroker or the private savings-bank, no legalized field of associative self-help but the friendly society; to which all federative expansion was denied. Eighteen hundred and sixty-seven finds the savings-bank system more efficient in itself, yet largely supplemented by the post-office savings-bank, which stakes the credit of the state on the safety of the poor man's deposit; finds the loan society, the benefit building society, the industrial or provident society, recognized and regulated by law, the large friendly societies with branches or harmless oaths or tests brought within its pale, the trade society struggling for recognition, and last, not least, the association of the worker to profits allowed without the risks of partnership.

In 1832, sanitary science, as distinct from curative medicine, may be said to have been unknown, and the only protection to life against other than personally injurious action, to have lain in the common law of nuisance, and the building acts of the metropolis, and of a few large towns; 1867 sees abroad a very flood of sanitary legislation. In every place large enough to maintain a local board, the right to pure air, pure

water, safe and wholesome dwellings, sweet and well-ordered streets, and public spaces, is, in fact, recognized by law. Many special facilities and provisions have been enacted for the construction of dwellings for the poor classes, and providing them with open spaces for recreation.

In 1832, the right of the English citizen, as such, to education, was wholly ignored. By 1867, nearly £700,000 a year is spent by the state in furthering the education of the classes able to contribute somewhat themselves for the purpose, who frequent our National British, and other assisted schools; whilst district schools for the pauper child, certified industrial schools for the vagrant and disorderly, reformatory schools for the criminal, tend alike to convert the useless or the burdensome into useful members of society. The Mechanics' Institute of the earlier period has been able to develop itself and to obtain some legal protection. Legal facilities have been given for the establishment of free libraries, museums, and schools of art. The inventive powers of the working-class have been stimulated by the copyright of designs acts, by an amended patent-act, by the protection given to articles exhibited at industrial exhibitions.

Eighteen hundred and thirty-two knew only a newspaper-press shackled in a hundred ways, operating under the constant terror of the common informer, weighed down by stamp-duties, advertisement-duties, and paper-duties. Eighteen hundred and sixty-seven sees that press absolutely free from all imports, the stamp only remaining as the price of an optional privilege. Notwithstanding the initiation of commercial reform by Huskisson, the reform acts of 1832 left the whole trade of the country and the industry of the workman doubly fettered by a mischievous fiscal system which enhanced at once the cost of consumption and of production, taxed safety, cleanliness, providence, light; whilst leaving the income of the rich untouched. Eighteen hundred and sixty-seven sees every necessary of life, every element of production, either free or subject to moderate duties; the window-tax gone, with the soap, brick, and timber duties; the duty on fire insurance greatly reduced; property and incomes directly charged to the state.

In 1832, the post-office was a burden on communication; it is now the most beneficent civil institution in the country.

In 1832 the association of capital, except by special privilege, did not, so to speak, exist. In 1867 almost every form of commercial association is practicable, under the joint-stock companies acts. Limited liability has enabled the working-class to contribute their small capital to the increase of the productive power of the country, and, by a late act, has practically been extended from the company to private establishments. In 1832 the stamp duties threw the ordinary legal transactions of the workman, the expenses of justice, the enforcement of his legal claims, practically out of the pale of the law. The reduction of the former on the one hand, the establishment (or rather revival) of the county court on the other, have, by 1867, brought both within it. The compensation for accidents act has created a new civil right of especial importance to his class.

In 1832 the poor laws were pauperizing and degrading the whole country. In 1867, although the right to live is more fully than ever recognized, the growth of pauperism has at least been stopped, if the evil plant remains far still from being uprooted.

The above extract contains a general outline of British legislation in the interest of the working classes from 1832 to the beginning of 1867. The laws affecting workmen and their relations to their employers, which have been enacted since the latter date, may be noticed in somewhat greater detail. That which first claims attention is the measure known as the "factory acts extension act of 1867," which bears date August 15 of that year. This act extends the operation of the factory acts to several large and important industries not previously included within their scope. It provides that, in addition to the establishments defined as factories in previous acts, the meaning of that word shall be so extended as to include blast-furnaces, copper-mills, iron-mills, foundries, and also the following:

1. Any premises in which steam, water, or other mechanical power is used for moving machinery employed—

a. In the manufacture of machinery;

b. In the manufacture of any article of metal, not being machinery;

c. In the manufacture of India rubber or gutta-percha, or of articles made wholly or in part of either of these substances;

2. Any premises in which is carried on the manufacture of glass, paper, or tobacco, book or letter-press printing; and,

3. Any premises, whether adjoining or separate, in the same occupation, situate in the same city, town, parish, or place, and constituting one trade-establishment, in which fifty or more persons are employed in any manufacturing process.

Under the provisions of this act no child, young person, or woman may be employed in or about any factory on Sunday, subject to modifications as regards blast-furnaces. No boy under twelve years of age and no female may be employed in any part of a glass-factory in which the process of melting or annealing glass is carried on. No child under eleven years of age may be employed in grinding in the metal trades. In the manufacture of glass no child, young person, or woman may be allowed to take his or her meals in any part of the factory where the materials are mixed, or (in the manufacture of flint glass) where the work of grinding, cutting, or polishing is carried on. The owner of an establishment may be required to provide a fan or other apparatus to ventilate his building and free it from dust, the inhalation of which would be injurious to the work-people. He is also required to put in proper condition any grindstone worked by steam or other mechanical power, which is so faultily fixed as to be likely to cause bodily injury to the grinder using the same, and a failure to comply with this requirement subjects him to the same penalties incurred by a failure to properly fence machinery under the factory act of 1844.

Her Majesty's principal secretaries of state are empowered to modify certain of the provisions of this act with regard to the necessities of particular trades.

Another act of the same date (August 15, 1867) authorizes Her Majesty, or one of her principal secretaries of state, to grant licenses for councils of conciliation or arbitration for the adjustment of differences between masters and workmen, when petitioned so to do by a certain number of the masters and workmen in any particular trade in any borough or place. Such councils must consist of a chairman and not less than two nor more than ten masters and workmen, to be elected by the masters and workmen respectively of the trade for which the council may be constituted. Such councils are empowered to settle disputes which otherwise would involve prosecutions and proceedings in court or before the magistrates, but not to fix rates of wages or hours of work.

The "agricultural gang's act" of August 20, 1867, was designed to remedy or mitigate certain well-known abuses connected with the hiring of women, young persons, and children, by contractors called "gang-masters," to be employed in agricultural work on lands not owned or occupied by the employer. It came into force on January 1, 1868, and applies to England only.

Under its provisions no child under eight years of age may be employed in an agricultural gang, females may not be employed in the same gang with males; nor may any female be employed under a male gang-master, unless a female licensed to act as "gang-master" is present with the gang.

No person is allowed to act as a gang-master unless he has obtained a license granted by two or more justices in divisional petty sessions on due proof that he is a person of good character and fit to be intrusted with the management of an agricultural gang. No license may be granted to any person who is licensed to sell beer, spirits, or any other excisable liquor.

The penalties under this act consist of fines and withdrawal of license, and all such penalties may be recovered summarily.

The "workshop regulation act" of August 21, 1867, came into opera-

tion on January 1, 1868, and applies to the whole of the United Kingdom. It forbids the employment of any child under eight years old "in any handicraft," which word it defines as meaning "any manual labor, exercised by way of trade, or for purposes of gain, in or incidental to the making any article or part of an article, or \* \* \* the altering, repairing, ornamenting, finishing, or otherwise adapting for sale, any article." It does not permit the employment of any child (person under thirteen years of age) in any handicraft more than six and a half hours in any one day, which hours must be between 6 a. m. and 8 p. m. No young person (person between thirteen and eighteen years of age) or woman (female of eighteen years or upward\*) may be employed in any handicraft during any period of twenty-four hours more than twelve hours, out of which not less than one and a half hours must be allowed for meals, and the employment must take place between 5 a. m. and 9 p. m. No child, young person, or woman may be employed in any handicraft on Sunday, or after 2 p. m. on Saturday, except in establishments where not more than five persons are employed in making articles to be sold by retail on the premises, or in repairing articles of a like nature to those so sold.

No child under eleven years of age may be employed in grinding in the metal trades or in fustian cutting.

The willful infraction of the above provisions subjects an employer to a penalty not to exceed three pounds, and the parent or person deriving any direct benefit from the labor of the person employed to a penalty not to exceed twenty shillings.

In every workshop where grinding or other process is carried on, whereby dust is generated and inhaled by the workmen to an injurious extent, the local authority or the inspector of factories may require the owner of the workshop to provide, within a reasonable time, a fan or such other mechanical appliance as may, from time to time, be approved by one of Her Majesty's principal secretaries of state, for the purpose of mitigating the evil mentioned.

The enforcement of the above provisions is intrusted mainly to the local authorities, it being left to the option of the inspectors of factories whether or not to visit and inspect any workshop.

Every child employed in a workshop must attend a school, having a properly-qualified teacher, at least ten hours in each week that he is so employed, and no time spent at school on Sundays, or before 8 a. m., or after 6 p. m., or in excess of three hours at any one time or of five hours in any one day, may be counted as a part of the ten hours demanded by the act.

In connection with the legislation of 1867, "the masters and servants' act" of that year, requires notice, as one which has caused much dissatisfaction among workmen, whose principal objection to it is founded on the fourteenth section of the law, which makes breach of contract on the part of the workman a criminal act, whereas on the part of the employer it is only an offense against civil law. In presenting this matter to the consideration of the home secretary in November, 1873, Mr. George Howell, secretary of the Trades-Union Parliamentary Committee, referred to the provision in question as follows:

This is quite an exception in the law of contract, and does not apply to contracts of any other description. Whatever interest may be involved in any other breach of contract, it is not dealt with criminally; but, under this law, if a man commits a breach of contract, and the magistrate thinks there are some aggravating circumstances con-

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\* The definitions of "child," "young person," and "woman," are those adopted in this particular act.

nected with it, this man is liable at any moment to be dragged off to prison as a common felon for absenting himself from work. \* \* \* The impossibility of applying the master and servants' act to breaches of contract committed by employers leads me to say, that, although this act was designed to be perfectly fair to both sides in its operation, it is not so, because it is impossible to prosecute employers. We admit that the act has had most beneficial results, and that the number of cases has diminished enormously since its enactment, for which we feel sincerely thankful; but we still think that the provision to which we object is not in accordance with the spirit of modern legislation, and that, if such a provision was ever necessary, it was only necessary when the people were less educated than they are now. If the law of contract be allowed to rest on its own basis, as a matter of equity between man and man, it may be trusted to accomplish all the purposes which justice requires.

An act "to provide better dwellings for artisans and laborers," which bears date July 31, 1868, was designed "to make provision for taking down or improving dwellings occupied by workmen and their families which are unfit for human habitation, and for the building and maintenance of better dwellings for such persons." It provides for the official inspection of such dwellings, and contains provisions to compel the owners of buildings so occupied to comply with its requirements.

The "wages attachment abolition act" of 1870 (July 14) provides that after its passage no order for the attachment of the wages of any servant, laborer, or workman shall be made by the judge of any court of record or inferior court.

A similar act "to limit wages arrestment in Scotland" is dated August 9, 1870. It provides that from and after January 1, 1871, the wages of all laborers, farm-servants, manufacturers, artificers, and work-people shall cease to be liable to arrestment for debts contracted subsequent to the passage of the act, unless such wages exceed twenty shillings per week, when the surplus over that amount may be arrested, but if the costs of such arrestment exceed the amount recovered they are not to be charged against the debtor.

The "factory and workshop act" of August 9, 1870, extends the definition of "factory" as enacted in the act of August 15, 1867, so as to make it include print-works, *i. e.*, works in which figures, patterns, or designs are printed upon any woven or felted fabric, (not being paper,) and bleaching and dyeing works, or "any premises, whether in the open air or not, in which the processes of bleaching, beetling, dyeing, calendering, finishing, hooking, lapping, and making up and packing any yarn or cloth of any material, or the dressing or finishing of lace, or any one or more of such processes, or any process incidental thereto, is carried on." To all such establishments the regulations of the act of August 15, 1867, in respect to factories as there defined, with certain modifications appended in a schedule, are extended.

An act dated May 25, 1871, exempts persons professing the Jewish religion from penalties incurred in respect of young persons and females professing the said religion working on Sundays, provided that the establishments in which such employment takes place are closed on Saturday up to sunset.

The trades-union act of June 29, 1871, provides that the purposes of any trades-union shall not, merely because they are in restraint of trade, be deemed to be unlawful, so as to render any member of such trades-union liable to criminal prosecution for conspiracy or otherwise, or to render void or voidable any agreement or trust. But nothing in this act shall enable any court to entertain any legal proceeding instituted with the object of directly enforcing or recovering damages for the breach of any of the following agreements:

1. Any agreement between the members of such union as to the conditions on which any members of such union shall or shall not sell their goods, transact business, employ, or be employed;

2. Any agreement for the payment by any person of any subscription or penalty to a trades-union ;
  3. Any agreement for the application of the funds of a trade-union—
    - a. To provide benefits to members, or
    - b. To furnish contributions to any employé or workman not a member of such trades-union, in consideration of such employé or workman acting in conformity with the rules or resolutions of such trades-union, or
    - c. To discharge any fine imposed upon any person by sentence of a court of justice; or
  4. Any agreement made between one trades-union and another; or
  5. Any bond to secure the performance of any of the above agreements.
- But none of the above agreements are to be deemed unlawful.

The act further makes provision for the registry of trades-unions, authorizes such unions to purchase or lease buildings and land, not to exceed one acre, (and for the purposes of this section makes every branch of a trades-union a distinct union;) vests the property of each union in its trustees, whom it makes responsible for moneys actually received on account of such union, and no further; prescribes the responsibility of the treasurer, and his punishment for withholding from the union money which he holds in trust for it; provides regulations for registry, and requires each union to place a copy of its rules and of any alterations in or amendments to the same in the hands of the registrar; requires each union to submit to the registrar an annual statement of its accounts, including the several objects of expenditure and the amount for each; applies the summary jurisdiction acts to all offenses committed under it, but under certain prescribed regulations allows an appeal to quarter sessions; provides that no interested person shall act as a member of a court of appeal, and defines the term "trades-union" as meaning such combination, whether temporary or permanent, for regulating the relations between workmen and masters, or between workmen and workmen, or between masters and masters, or for imposing restrictive conditions on the conduct of any trade or business, as would, if this act had not been passed, have been deemed an unlawful combination by reason of some one or more of its purposes being in restraint of trade. The act in question also repeals the trades-unions' funds acts of 1869.

Another act, bearing the same date as the last, (June 29, 1871,) and known as "the criminal law amendment act," has been, and still is, a source of much dissatisfaction and bitter complaint on the part of the working-classes of the United Kingdom. This act makes it an offense punishable with imprisonment, with or without hard labor, for not exceeding three months, to do any one of the following acts:

- (1) To use violence to any person or any property.
- (2) To threaten or intimidate any person in such a manner as would justify a justice of the peace in binding over the person so threatening or intimidating to keep the peace.
- (3) To molest or obstruct any person in the manner defined by this section, with a view to coerce such person—
  - (1) Being a master, to dismiss or cease to employ any workman; or, being a workman, to quit any employment, or to return work before it is finished;
  - (2) Being a master, not to offer, or, being a workman, not to accept, any employment or work;
  - (3) Being a master or workman, to belong to any temporary or permanent association or combination;
  - (4) Being a master or workman, to pay any fine or penalty imposed by any temporary or permanent association or combination;
  - (5) Being a master, to alter the mode of carrying on his business, or the number or description of any persons employed by him.

For the purposes of this act a person is deemed to molest or obstruct another person in any of the following cases:

- (1) If he persistently follow such person about from place to place.
- (2) If he hide any tools, clothes, or other property owned or used by such person, or deprive him of, or hinder him in, the use thereof.



(3) If he watch or beset the house or other place where such person resides, or works, or carries on business, or happens to be, or the approach to such house or place; or if, with two or more persons, he follow such person in a disorderly manner in or through any street or road.

It is provided that no one shall be punished for doing or conspiring to do any act merely on the ground that such act restrains or tends to restrain the free course of trade.

Offenses committed under this act are to be prosecuted under the summary-jurisdiction acts, appeals being allowed under certain defined conditions.

In an interview with the home secretary, in November, 1873, Mr. Howell referred to the criminal law amendment act, as follows :

We ask that the entire act may be repealed. It has caused heart-burnings on the part of the workmen such as no other law has. \* \* \* We feel, moreover, that none of the prosecutions under that act can justify its continuance. Most of them have been unjust and the punishments have been much more severe than the act itself warranted. We feel that if it be necessary really to provide some remedy against particular offenses, for instance, "rattening," this can be provided for in another act dealing with "malicious injury to property," and applying to the whole country; and violence to the person can also be provided against in another act dealing with "offenses against the person." The criminal law amendment act being a special act directed against workmen in unions, we feel that we have a right to ask the government to remove it. Even if it were just in its principles, it is so intricate and involved, and has been so variously interpreted, that none of us are safe.

An act dated August 16, 1871, and entitled "The industrial and provident societies act amendment," is designed to facilitate the erection of houses, cottages, or other buildings on land held by such societies, and gives them certain new powers to build, sell, lease, mortgage, &c.

The "factory and workshop act" of August 21, 1871, takes the duty of enforcing the workshop acts of 1867 to 1871 from the local authorities, and imposes it upon the inspectors and subinspectors of factories. It forbids the employment after January 1, 1872, of any female under sixteen years of age, or any child under ten years, in the manufacture of bricks and tiles, (other than ornamental tiles.) It requires that any accident causing loss of life to any one employed in a factory, and any accident produced by machinery, or by explosion, or escape of gas, or steam, or metal, if of such a nature as to prevent the person or persons injured by it from returning to their work in the factory within forty-eight hours after its occurrence, shall be made known to the proper authority. It provides that all offenses under the factory acts of 1833 to 1871, inclusive, may be prosecuted and the penalties therefor recovered summarily. In certain cases, where the nature of the business carried on in any class of factories or workshops is shown to depend on the weather or the season of the year, and where it is consequently necessary to employ young persons of fourteen years of age and upward and women at certain times of the year for a longer period than is allowed by the factory act's extension acts of 1864 and 1867, or the workshop-regulations act of 1867, one of Her Majesty's principal secretaries of state is authorized to make and publish certain defined exceptions to the provisions of the laws in question.

The act of August 6, 1872, "to make further provision for arbitration between masters and workmen," authorizes the appointment, by mutual agreement between masters and workmen, of an arbitrator or of arbitrators, and of an umpire to act in cases of disagreement between the arbitrators, for the settlement of disputes between masters and workmen. An agreement under this act is made mutually binding upon the master and the workman, upon the master or his agent giving a printed copy of the agreement to the workman, and the workman accepting the

same; provided that the workman may give notice to the master, within forty-eight hours after receiving a copy of the agreement, that he will not be bound by it; in which case the agreement, as between such master and such workman, is to be of no effect.

An agreement entered into between a master and a workman is to be binding upon each of them during the continuance of the contract or service in view of which it was made, and so long thereafter as they mutually consent to employ and serve without having rescinded it, or until the expiration of any notice (not to exceed six days) of an intention to cease employing or serving, where such notice has been made a part of the agreement.

The agreement may provide that the parties to it shall, during its continuance, be bound by any rules therein contained, or to be made by the arbitrators, arbitrator, or umpire, as to the rate of wages to be paid, the hours or quantities of work to be performed, or the conditions or regulations under which work is to be done, and may specify penalties to be enforced by the arbitrators, arbitrator, or umpire, for the breach of any such rule.

The agreement may also provide for referring to the arbitrator, arbitrators, or umpire certain disputes arising out of infractions of law, and upon his or their hearing and determining the same, no other proceeding can be taken before any other court or person for the same matter; but, if the disagreement or dispute is not so heard and determined within twenty-one days from the time when it arose, the jurisdiction of the arbitrators, arbitrator, or umpire ceases, unless the parties have consented in writing, since the disagreement or dispute arose, that it shall be exclusively determined by the arbitrators, &c.

Further provisions of the act relate to the procedure of the arbitrators, the taking of evidence, and the power to compel the attendance of witnesses, &c.

The "coal-mines regulation act" of August 10, 1872, applies to mines of stratified iron-stone, mines of shale, and mines of fire-clay, as well as to coal-mines. It prohibits the employment of any boy under ten years of age, or any woman or girl of any age, underground in such mines. It permits the employment of boys between ten and twelve years of age, when specially allowed by one of Her Majesty's secretaries of state in view of a necessity due to the thinness of the seams, but not for more than six days in a week, and not for more than six hours in a day, if employed more than three days per week; and in any case not more than ten hours in a day.

A boy of twelve years of age, or a "male young person" under the age of sixteen, may not be employed below ground, in any mine to which the act applies, for more than fifty-four hours in any one week, or more than ten hours in any one day.

Every boy of from ten to twelve years of age, allowed to be employed in mines as mentioned above, is required to attend school for at least twenty hours in every two weeks. Elaborate and stringent provisions are enacted to prevent the violation of this section or any evasion of either the letter or the spirit of the requirement. Thus the school-attendance must not be in the evening, or on Sunday, nor must it exceed three hours at any one time, or five hours in any one day, or twelve in any one week; that is, any time in excess of these periods will not be counted as a part of the twenty hours every two weeks required by the laws. The forging or counterfeiting of a certificate of school-attendance, or the use of a forged or counterfeit certificate, is made punishable with three months' imprisonment, with or without hard labor, and the neglect of

a parent to send his boy to school incurs a penalty not to exceed twenty shillings for each offense. There are other provisions intended to prevent the sending of a boy to an incompetent teacher, one of which is that the government inspector of mines for the district in which the boy is employed may declare a teacher disqualified to issue certificates, subject, however, to an appeal on the part of the teacher to the education department.

With respect to the employment of women, young persons, and children *above* ground in connection with such mines, it is provided that (1) no child under ten years of age shall be so employed, and every child so employed is subject to the regulations (as to hours of labor and school-attendance) mentioned above as applying to boys of from ten to twelve years of age. The regulations with respect to "male young persons" under sixteen years of age are applied to every woman and child employed *above* ground at the mines, and no woman, young person, or child may be so employed between the hours of 9 at night and 5 the following morning, or on Sunday, or after 2 p. m. on Saturday. The intervals for meals allowed to such persons must not be less than half an hour to each period of employment exceeding five hours, or less than one and one-half hours to every period of employment exceeding eight hours.

As a safeguard against accident, it is provided that the person in charge of any engine or apparatus used in going into or coming out of the mine shall be a male of at least eighteen years of age.

Wages must not in any case be paid to persons employed in or about a mine at any public house, or other place where spirituous or fermented liquors are kept for sale.

The act requires that in communication with every seam, with certain defined exceptions, in which persons are employed in mining, there shall be at least two shafts or outlets, separated by natural strata of not less than ten feet in breadth, communicating with each other by a passage at least four feet wide and three feet high, and each provided with proper apparatus for raising or lowering the persons employed in the mine.

Every mine coming under the provisions of this act, with certain specified exceptions, is required to be under the control and daily supervision of a properly qualified manager, (who may be the owner or agent of such mine, but must not be a contractor for getting the mineral in such mine, or a person in the employ of such contractor,) and such manager, though nominated by the owner or agent, must also be provided with a certificate of competency granted by a board of official examiners, and must be registered as having such certificate. A certificate of service, however, showing the requisite past experience in the management of a mine or mines is allowed as an equivalent for a certificate of competency granted under this act. A certificate of either class may be canceled if its holder, upon a proper inquiry, be convicted of incompetence or gross negligence.

Provision is made for the appointment of inspectors of mines, who must be free from certain specified disqualifications calculated to interfere with their disinterestedness, and who shall have the right to enter and inspect any mine to which the act applies, and to see that the act is complied with; and they must also notify the owner, agent, or manager of the mine of any cause of danger not provided against in the rules, but which they may discover in the course of their inspections.

Where the owner, agent, or manager of a mine is unwilling to comply with the requirements of the inspector in regard to a matter not pre-

scribed in the act, the case is to be referred to two arbitrators, one to be selected by the inspector and the other by the owner, agent, or manager of the mine, and neither of them to be interested in the mine to which the arbitration relates. To settle any points of difference that may arise between them, the arbitrators are to select an umpire, whose decision on matters referred to him is to be final, as also is that of the arbitrators on the general case. Every arbitrator must either be a practical mining engineer or a person accustomed to the working of mines.

The act embodies a series of rules in relation to ventilation, the fencing of places (shafts, &c.) not in use, the withdrawal of workmen from the mine in case of danger, the use of safety-lamps and other lights, the employment of gunpowder in blasting, the securing of the shafts, roofs, and sides of a mine, the daily inspection of mines, and various other points touching upon the safety of the persons employed therein. Willful neglect of precautions necessary to safety incurs the penalty of imprisonment. A large part of the act consists of careful provisions, intended to secure its own enforcement and to prevent evasion of its requirements.

The "metalliferous mines regulation act," bearing the same date as the above, applies to all mines excluded from the operation of that law. Under the provisions of this act no boy under twelve years of age, and no girl or woman of any age, may be employed in any mine below ground. No boy of twelve years of age and under thirteen years, and no young person of from thirteen to sixteen years of age may be employed in a mine below ground for more than fifty-four hours in any one week, or more than ten hours in any one day. An interval of not less than eight hours must be allowed for rest between the period of employment on Friday and the period of employment on the following Saturday, and in other cases the interval between periods of employment must not be less than twelve hours, except in the case of boys and young male persons whose employment is at such a distance from their ordinary place of residence that they do not return there during the intervals of labor, and who are not employed more than forty hours in any week. In such cases an interval of eight hours must be allowed between each period of employment. The period of each employment is deemed to begin at the time of leaving the surface and to end at the time of returning to the surface. The regulations in regard to the payment of wages and precautions against accidents have a general similarity to those provided in the "coal-mines regulation act."

The last important act of the series known as "the factory acts" is that of July 30, 1874, entitled "An act to make better provision for improving the health of women, young persons, and children employed in manufactures, and the education of such children, and otherwise to amend the factory acts." This act, which came into operation on the 1st of January, 1875, provides that in every factory to which it applies, the period during which children, young persons, or women may be employed shall be either the period between 6 a. m. and 6 p. m. or the period between 7 a. m. and 7 p. m.

Where the period between 6 a. m. and 6 p. m. is adopted, a child, young person, or woman shall not be employed except between those hours, and shall not be employed continuously for more than four and a half hours without an interval of at least half an hour for a meal. Between the hours of 6 a. m. and 6 p. m. on every day except Saturday, two hours shall be allowed for meals, of which time at least one hour shall be before 3 p. m. On Saturday, a child, young person, or woman

shall not be employed in any manufacturing process after 1 p. m., or for any purpose whatever after 1½ p. m.; and if, on that day, the time allowed for meals be less than one hour, the time for quitting work shall be half an hour earlier than the hours just named.

The provisions in regard to factories in which the period of employment is from 7 a. m. to 7 p. m. are similar to those above, with such changes of time as are necessary in consequence of the difference in the hours for commencing and quitting work.

In factories to which this act applies, the children may be employed either in morning and afternoon sets, or, on alternate days, for the whole day. When the former plan is adopted, a child who, on any day except Saturday, is employed in the forenoon, shall not be employed after dinner on the same day; nor shall any child be employed on Saturday for two successive weeks, or in any week in which, on any other day, he has been employed more than five hours. Children so employed in factories must attend school, as directed by section 38 of the factory act of 1844.

When children are employed on alternate days, they may be employed during the same hours and with the same hours for meals as young persons and women, but must not be employed on two successive days, and must attend school as provided in section 31 of the factory act of 1844.

After January 1, 1876, in the case of factories to which this act applies, a person of the age of thirteen years and under fourteen years shall be deemed to be a child and not a "young person," unless he has obtained from the proper authorities a certificate of having attained such standard of efficiency in reading, writing, and arithmetic as may from time to time be prescribed. During the year 1875 a child may not be employed in a factory if he is under the age of nine years, and after the expiration of that year he may not be employed if he is under ten years of age. The three last provisions do not apply to persons who may be lawfully employed in factories before the time when they go into effect.

The enactment of the factory act of 1850, or any previous act, which authorized the employment of any child in the silk manufacture during longer hours than those authorized in the case of a child in any other factory to which this act applies, with certain exceptions during the first two years of its operation, are repealed.

Various provisions of a minor character, as well as those details which are intended to secure the enforcement of the act and to guard against the evasion of its requirements, are omitted.

Another act of the same date as the last, entitled the "hosiery manufacture and wages act," was directed against a custom which had prevailed among employers in the hosiery manufacture of letting out knitting-frames and machinery to the artificers employed by them and the deducting of rents for these frames from the wages of such artificers. The act provides, among other things, that all wages in the hosiery manufacture shall be made payable in net amounts, without any stoppages or deductions whatever, except for bad and disputed workmanship.

Another measure adopted during the same session of Parliament was the "workingmen's dwellings act" of August 7, 1874, which is intended to enable municipal corporations to grant or lease land belonging to them to parties binding themselves to erect thereon dwellings of the class to which the act applies. This act relates only to England and Wales.

Among the measures for which the British workingmen are now ask-

ing, in addition to the repeal or modification of the two obnoxious laws above named, may be mentioned the amendment of the trades-union and conspiracy acts; the reconstruction of the small-penalties act on the principle that imprisonment should only be used as a means of enforcing payment after all other means have failed; the modification of the law in relation to summary jurisdiction and the qualification of magistrates and jurors respectively, including a reduction in the qualifications of the latter and payment for jury service; an alteration in the law so that workmen or their families may be able to sue employers in event of injury or death from accidents due to negligence; a further extension of the factory and workshop acts, an act to prevent truck, and an act for the protection of seamen's lives by preventing the sending of ill-found and unseaworthy vessels to sea.

### TRADES-UNIONS IN THE UNITED KINGDOM.

The legislation of Great Britain for the regulation of factories, mines, and workshops, so far at least as it authorizes or forbids the employment of any person or prescribes the hours during which any person shall labor, has been confined, as has been seen in the foregoing summary, to the protection of "children, young persons, and women." The theory of the legislature has been that adult men were capable of making their own terms with their employers, and that there was, consequently, no occasion for the law to interfere with their agreements, further than to enforce such contracts as workman and employer might voluntarily enter into. Entering, upon these conditions, into the contest with capital, the workmen, in steadily increasing numbers, have sought to gain additional strength by combinations formed among the members of particular trades, and sometimes even by mutual support and assistance among the members of different trades. Such combinations have sometimes been temporary, having been formed for the accomplishment of special purposes, after the attainment of which, or the failure to attain them, they have ceased to exist as associations. But the most common form of combination in recent times, for trade purposes, has been the organization of those permanent societies generally known as trades-unions.

Combinations for trade purposes have, indeed, existed in Great Britain and elsewhere in Europe for many centuries; such, for example, as the medieval guilds and trades-companies. These, however, differed very widely from the modern trades-unions, the medieval trades-companies consisting both of employers and workmen, while the guilds were originally formed for the protection of life and property in an age when the state was less successful than at present in the performance of that duty. One of their purposes undoubtedly was to strengthen the urban populations at a time when feudal nobles were accustomed to levy tolls upon commerce and exact heavy contributions from the cities and towns. In the times of the Plantagenets the two great mercantile guilds of London and Bordeaux were co-extensive with their municipal corporations, and were sufficiently powerful to show considerable spirit and independence, even in their dealings with royalty itself. As the guilds increased in power, they became exclusive, and in some cases various classes of workmen were debarred from membership. One regulation required that a workingman should "purge himself by abstinence from work for at least a year and a day" before he could enter the sacred chamber of the guild. This sometimes led to the formation of separate associations of tradesmen in one town, which, however, was in some cases followed by a re-union into one guild, such as took place in 1284 at Berwick-on-Tweed.

The medieval trades-companies were composed of small capitalists and workmen, but they had some regulations similar to those of the modern trades-unions. They fixed the relative number of apprentices and journeymen to be employed by a master, and had rules against working with men who had not regularly learned their trade, as well as against systematic over-time. In some instances they appear to have taken away the tools of members who failed to pay their dues, as a means, perhaps, of coercing them into payment rather than as a punishment. Disputes between masters and workmen were settled by the president of the company and its court of assistants. It was one of their rules that any man entering a town and seeking employment in a particular trade, must join the company representing that trade and pay his dues to its funds as a condition of being permitted to work. The fees at first were small, but were raised as the companies increased in power, until admission became very difficult and the companies themselves became oppressive monopolies. The charge for apprenticeship was also raised to a very exorbitant figure. In the twelve great companies of London, (the mercers, grocers, fishmongers, goldsmiths, skimmers, merchant-tailors, haberdashers, salters, ironmongers, vintners and cloth-workers,) the fee for apprenticeship was successively raised from 10 to 40 and ultimately to 100 pounds, whereas in the early times it was only half a crown. Illegitimate children, and even the sons of peasants, were refused admission as apprentices.

As early as the reign of Edward II, no person could be made a freeman of the city of London unless he belonged to one of the trades-companies, and in the following reign the court of common council was chosen from the trades and not from the wards of the city, while the Lord Mayor was required to be a member of one of the twelve great companies. To these was transferred the power, which the old guild had formerly possessed, of making or changing trade regulations, and their privileges were confirmed by Edward III, who was himself a member of the company of cloth-workers. In the sixteenth century the members of the trades-companies were divided into three classes: The livery, which included the richer members, the masters, and the free workmen. Their form of government had, by this time, become more aristocratic, the officers being appointed by a committee or court of assistants, instead of being elected in a general assembly of the members. In short, the trades-companies ceased to be friendly associations between capitalists and workmen, and in the end were controlled by men of considerable wealth, even if they were not composed entirely of that class. By their exorbitant fees for apprenticeship, and their arbitrary restrictions they rendered it difficult, if not impossible for a poor man's son to learn a trade, while by preventing competition they taxed the public in general for their own benefit.

In English history there are records of a number of coalitions among workmen for particular purposes, and in the sixteenth and seventeenth centuries there were in Germany associations of journeymen formed, apparently for mutual assistance during those years of travel (wanderjähre) which the regulations of the trades-companies required of the young workman on the completion of his apprenticeship; but it was not until the latter part of the eighteenth century that those permanent organizations, now so well known under the name of trades-unions, began to make their appearance. These organizations are, indeed, one of the natural outgrowths of that great revolution in industry which has already been dwelt upon at some length. In an industrial system which was carried on by means of great accumulations of capital on the one hand, and great numbers of laborers without capital on

the other, and which at the same time collected these laborers into large groups and brought them into constant association with each other, it was almost inevitable that such organizations should spring into existence. To the circumstances just mentioned must be added another which strongly contributed to the progress of association among working people. The new industrial methods had gathered them in vast numbers into the towns where manufactures were established, and where, being unable to cultivate a garden or to keep a cow, a pig, or a few chickens or geese, they were wholly dependent upon employment in their own particular industry; and when, through a collapse of trade, this industry failed to furnish them with work, they were liable to be reduced to a condition of pitiable helplessness and of deep distress. Accordingly many societies were organized for the purpose of mutual assistance and relief, and it was in such friendly purposes that many of the trades-unions had their origin. Indeed, mutual relief in sickness, accident, or lack of work, still forms an important feature among the objects to which a majority of the trades-unions are devoted.

Up to 1824, when the coalition act of 1800 was repealed, these associations were illegal, and such as existed were obliged to conduct their proceedings in secrecy. Since that time they have grown very rapidly, although even as late as 1871 the law prohibited them from taking any action calculated to interfere with the free course of trade—such, for instance, as interfering between their members and the employers in regard to rates of wages or hours of labor.

The following list comprises the names of the associations represented in the National Trades-Union Congress held at Liverpool in the latter part of January, (January 18 to 23, inclusive,) 1875, with the number of members in each :

Alliance Cabinet-Makers' Association.....	1,900
Altrincham Trades Council.....	450
Amalgamated Beamers, Twisters, Drawers' Society, Blackburn.....	900
Amalgamated Tailors.....	14,000
Amalgamated Boot and Shoe Makers.....	5,511
Amalgamated Wood-Turners, Sawyers, and Shuttle-Makers.....	1,100
Amalgamated Society of Engineers.....	44,000
Amalgamated Council of Woolen Operatives, Yorkshire.....	430
Amalgamated Association of Cotton-Spinners.....	14,200
Amalgamated Association of Miners.....	45,000
Amalgamated Society of Railway Servants.....	20,000
Amalgamated Iron and Steel Workers.....	20,000
Amalgamated Operative Bakers, Liverpool District.....	400
Amalgamated Society of Carpenters and Joiners.....	13,090
Amalgamated Trades Council of Bury.....	1,250
Birmingham Trades Council.....	9,000
Blackburn Card-Room Operatives' Association.....	1,200
Bolton Trades Council.....	2,000
Boiler-Makers and Iron-Shipbuilders.....	15,000
Brick and Tile Makers, North Stafford.....	150
British Plate-Spoon and Fork-Filers' Society.....	100
Bury Trades Council.....	1,250
Chester Trades Council.....	500
Crewe Trades Council.....	1,000
Dressers, Dyers, and Finishers.....	1,764
Dundee United Trades Council.....	8,000
Durham Colliery Mechanics.....	2,300
Durham County Colliery Engineers' Association.....	1,573
East Lancashire Power-Loom Weavers' Amalgamated Association.....	16,000
East London Operative Society of French Polishers.....	200
Edge-Tool and Wool-Shear Grinders' Society.....	250
Edinburgh United Trades Council.....	10,000
Executive Council Millers' Association.....	400
Federal Union of Agricultural Laborers.....	30,000
Flemish Union of Sheffield.....	3,000



Fire-Iron Workers, Birmingham and District.....	250
Friendly Society of Operative Cabinet-Makers, &c., of Great Britain.....	1,950
General Alliance of Operative House Painters.....	5,000
General Union of Carpenters and Joiners.....	9,701
General Union of Basket, Skip, and Hamper Makers.....	700
General Union of Tin-Plate Workers.....	1,250
Glass-Bottle Makers, Yorkshire.....	1,000
Glasgow United Trades Council.....	140,000
Gravesend and Vicinity Trades Council.....	200
Hollow-ware Pressers, Potteries.....	700
Iron-Founders' Society of England, Ireland, and Wales.....	12,075
Kent Agricultural and General Laborers' Union.....	9,500
Leeds and District Trades Council.....	4,000
Leicester Section of National Amalgamated Union of Operative Riveters and Finishers.....	1,200
Leicester Trades Council.....	3,170
Lincoln Trades Council.....	500
Liverpool Brick-Makers' Society.....	400
Liverpool Operative Ship-Painters' Benefit Association.....	800
Liverpool No. 2 Branch Operative House-Painters.....	300
Liverpool and Vicinity United Trades Council.....	5,760
Liverpool Sail-Makers' Association.....	408
Liverpool Amalgamated Boot-Makers' Center Men's Men.....	180
Liverpool United Shipping Trades Council.....	2,610
Liverpool Coopers' Friendly Trade and Burial Society.....	400
Liverpool Shop Assistants' Union.....	620
Liverpool Rope-Makers.....	120
Liverpool Mast and Block Makers.....	152
Liverpool Tin-Plate Workers' Society.....	210
London Amalgamated Society of Tin-Plate Workers.....	500
London Consolidated Bookbinders.....	830
London Trades Council.....	13,734
Manchester and Salford Trades Council.....	10,000
Mersey Ship-Joiners' Association.....	500
Mersey Shipwrights' Association.....	1,020
Miners' National Association.....	140,000
National Agricultural Laborers' Union.....	60,000
National Amalgamated Union of Operative Boot and Shoe Riveters and Finishers.....	4,000
National Association of Nut and Bolt Makers.....	2,000
National Association of Operative Plasterers.....	3,300
National Flint-Glass Makers of Great Britain and Ireland.....	2,000
National Union of Working Women.....	300
National United Association of Rope and Twine Spinners of Great Britain and Ireland.....	1,600
Nottingham and Neighborhood Association of Organized Trades.....	3,000
Nottingham Amalgamated Society of Lace-Makers.....	2,500
North Stafford Engineers' Association.....	500
Oldham Amalgamated Trades Council.....	3,500
Oldham Operative Cotton-Spinners' Provincial Association.....	2,902
Operative Bricklayers' Society.....	3,750
Operative Bricklayers, Sheffield, Manchester Order.....	6,200
Operative Stone-Masons' Society.....	24,000
Provincial Typographical Association.....	3,800
Razor-Blade Grinders, Sheffield.....	200
Rotary Power Framework Knitters.....	650
Scissors-Grinders, Sheffield.....	200
Seamens' Protective Society, Liverpool.....	2,800
Sheffield File-Grinders.....	300
Sheffield Trades Council.....	4,000
Sheffield United Steel-Melters' Association.....	600
South Yorkshire Colliery Operatives' Association.....	3,200
Stalybridge Trades Council.....	1,200
Steam-Engine Makers' Society.....	3,850
Stockport Power-Loom Weavers.....	2,500
United Kingdom Society of Coach-Makers.....	7,040
United Kingdom General Post-Office and Telegraph-Service Benefit Society ..	
United Journeymen Brass-Founders' Association of Great Britain and Ireland.....	1,750
United Operative Masons' Association of Scotland.....	10,632
Walsall and District Trades Council.....	800

Warrington Filesmiths' Union .....	390
West End London Cabinet-Makers .....	400
West Surrey District of the Federal Union of Agricultural Laborers .....	
Wolverhampton Trades Council.....	1,300

It will be seen that this gives a total of 919,842 members, from which some deductions must be made for duplicate representation.\* After making these allowances it will be quite safe to say that the aggregate membership of the trades-unions represented in the congress† did not fall short of 800,000.

#### AMALGAMATED SOCIETY OF ENGINEERS.

The growth of trades-unionism will, however, be best illustrated and its present position most clearly indicated by presenting statistics of a few of the larger associations. One of the most important and compactly organized of these bodies, though not now the largest in point of numbers, is the "Amalgamated Society of Engineers, Machinists, Millwrights, Smiths, and Pattern-makers," more commonly known, however, as the "Amalgamated Engineers." This great association, numbering at the close of 1874 about 45,000 members, grew out of a "friendly union of mechanics," which was formed in Manchester about the year 1826, or within a short time after the repeal of the coalition act. In its present form, however, it has existed only twenty-four years, or since 1851. Its growth during that period is exhibited by the following table, showing the number of its members, the amount of its accumulated fund, and the average amount per member, at the close of each year, from 1851 to 1873, inclusive:

TABLE I.

Year.	Number of members.	Balance on hand at close of year.			Amount to each member.		
		£	s.	d.	£	s.	d.
1851.....	11,829	21,705	4	11½	1	16	8
† 1852, (June).....	11,617	1,721	2	11			
1852, (December).....	9,737	5,382	1	3½		11	0½
1853.....	10,757	17,812	16	7	1	13	1½
1854.....	11,617	20,202	11	9	1	14	9½
1855.....	12,553	35,695	1	11	2	16	10½
1856.....	13,405	43,207	18	3½	3	4	5½
1857.....	14,299	47,947	4	10½	3	7	0½
1858.....	15,194	30,353	12	1½	1	19	10½
1859.....	17,790	36,831	19	8	2	1	4½
1860.....	20,935	60,198	1	6	2	17	6
1861.....	22,862	73,398	1	0½	3	4	2
1862.....	24,234	67,615	16	6	2	15	9½
1863.....	26,058	67,410	3	8	2	11	8½
1864.....	28,815	86,947	15	0	3	0	4½
1865.....	30,984	115,357	13	10½	3	14	5½
‡ 1866.....	33,007	138,113	8	3	4	3	8½
1867.....	33,325	125,263	2	7	3	15	2
1868.....	33,474	98,699	2	1½	2	18	11½
1869.....	33,539	76,176	7	10	2	5	1½
1870.....	34,711	82,467	6	11½	2	7	6½
1871.....	37,790	116,326	6	7½	3	1	6½
1872.....	41,075	158,313	15	10½	3	17	1
1873.....	42,382	200,923	1	6½	4	14	9½
1874.....	44,000						

\* Some of the city "trades councils" above mentioned comprise branches of trade-organizations separately represented.

† Some of these unions have branches in the colonies and in foreign countries.

‡ 1852 was the year of the great lock-out.

§ The effect of the panic of 1866 and the industrial prostration of the succeeding years is visible in a falling off in the society's funds.

The following table shows the amounts expended for beneficial purposes by the Amalgamated Society of Engineers during the twenty-three years from 1851 to 1873, inclusive, with the amount expended for each purpose, and the average amount of expenditure per member :

TABLE II.

Class of benefit.	Amount expended.			Average per member.		
	£	s.	d.	£	s.	d.
Donations to members * .....	561,827	0	0	24	11	8½
Relief in sickness .....	252,441	0	0	9	18	9½
Superannuation .....	89,856	0	0	2	19	11½
Accidents .....	22,800	0	0	18	8½	
Funerals .....	80,687	0	0	3	3	7½
	1,907,611	0	0	41	12	9
Benevolent grants, (nineteen years) .....	20,553	0	0	13	8½	
Assistance to other trades, (twenty years) .....	11,830	0	0	11	7	
Total .....	1,039,994	0	0	42	18	0½

\* By "donations" is meant the stated pecuniary assistance rendered to members when out of work.

The following table shows the expenditures of the same association for the year 1873, with the different objects of expenditure and the average amount per member :

TABLE III.

Objects of expenditure.	Aggregate.			Amount per member.		
	£	s.	d.	£	s.	d.
Donations, fares to situations, and beds to non-free members.	13,645	11	5½	6	5½	
Contingent benefit .....	1,916	18	0			10½
Sick benefits, stewards and medical certificates .....	18,022	5	9	8	6	
Superannuation benefit .....	9,477	18	11	4	5½	
Accidents, &c., per twenty-third rule* .....	1,800	0	0			10½
Funerals .....	6,567	10	2	3	1½	
Grants from benevolent fund .....	1,436	16	8			8½
Printing, stationery, emblems, postage, and parcels.	3,950	0	8½	1	10½	
Branch-officers, executive council, secretaries, treasurers, auditors, banking expenses, delegations, and bonds of security.	6,276	12	11	2	11	
Rents, rates, coal, and gas .....	1,343	16	2½			7½
Purchasing new property, including club-boxes, locks for ditto, &c. ....	118	13	2½			0½
Telegrams, bad coin, &c. ....	567	6	9½			3½
Grants to other trades .....	694	0	0			4
Grants to London trades council, trades parliamentary committee, gas-stokers' defense fund.	58	6	8			0½
	65,875	17	5½	1	11	1
Unacknowledged remittances .....	1,324	0	0			
	67,199	17	5½			

\* The twenty-third rule relates to assistance to members in emigration, and will be noticed hereafter.

At the end of 1873 this society had 358 branches, of which 259 were in England and Wales, 39 in Scotland, 11 in Ireland, 7 in Australia, 1 each in New Zealand, Queensland, and the East Indies, 5 in Canada, 1 in Malta, 2 in Turkey, 1 in France, and 30 in the United States. The average number of members to each branch at the date mentioned was a fraction over 118; the largest branch (located at Crewe, in Cheshire,) having 458, and the smallest only 6. Under the revised rules of the association, adopted May 25, 1874, a branch cannot be organized with less than twelve members, and the local councils have the power to discontinue all existing branches having not more than ten members.

The American branches (*i. e.*, those in the United States) comprise an aggregate membership of 1,405, or an average of 47, less a small fraction, to each branch. They are located at the following places: Allegheny City, Altoona, Atlanta, Bloomington, (Ill.,) Boston, Brooklyn, Buffalo, Chicago, Cleveland, Detroit, Dunkirk, Elizabethport, (N. J.,) Fall River, (Mass.,) Louisville, Nashville, Newark and New Brunswick, (N. J.,) New York City, (two branches,) Omaha, Paterson, (N. J.,) Philadelphia, Pittsburgh, Port Huron, (Mich.,) Providence, Rochester, San Francisco, Schenectady, Saint Louis, and a town in New Jersey, the name of which is omitted.

The income of the society during the year 1873 from the regular payments of members and other sources (including £3,851 14s. 6d. as interest on money deposited in bank) was £109,809 3s. 2d. Its expenditures for the year, as already shown, were £67,199 17s. 5½d., leaving £42,609 5s. 8½d. to add to the surplus fund, which was thus swelled to the figure already given, namely, £200,923 1s. 6¾d., or an average of £4 14s. 9¾d. (about \$26 in United States paper currency) per member.

An applicant for admission into this society must not be under 21, (with a few specified exceptions,) or over 40 years of age. He must have worked five years at his trade, and must be earning the ordinary rate of wages in the district in which he is employed. He must also be a person of "steady habits and good moral character," and must be free from certain specified physical disabilities, such as being deaf or dumb, having lost a limb, or two entire fingers off one hand, being ruptured, subject to fits, or obliged to use glasses at his work in consequence of imperfect vision. A member who wittingly proposes an ineligible candidate for membership is liable to a fine of £1.

The fee for admission to membership varies according to the age of the member, rising gradually from 15s., the fee at 25 years of age, to £3, the fee at 40 years of age. The regular contribution is 1s. per week from each member; but when the accumulated fund falls below £3 per member, the contribution is increased by such sum as will sustain the fund at the amount named.

Every "free member" in good standing, who is out of work under circumstances satisfactory to the branch to which he belongs, receives a donation of 10s. per week for fourteen weeks, 7s. per week for the next thirty weeks, and a further sum of 6s. per week until employment is obtained, making a total of £19 18s. in any period of fifty-two weeks, provided the member should be out of employment so long. A member receiving "short donation" of either 7s. or 6s. per week cannot again draw "full donation" without having worked four successive weeks at the trade, and at the ordinary wages of the shop in which he is employed; nor can any member receive the "full donation" for more than fourteen weeks in any period of fifty-two weeks. A member losing his employment through drunkenness or disorderly conduct is not entitled to donation until he has been again employed eight weeks at his own branch of the trade, and at full wages.

A "free member" on donation may obtain a "traveling card" from the secretary of his own branch of the society, and on complying with certain prescribed regulations, may receive his donation from the secretaries of branches situated in the different towns or cities to which he may go in search of work. A "non-free member," who has paid the whole of his entrance money, and is not more than 10s. in arrears, is allowed 8d. for a bed in each town or city to which he may travel; and where there are three or more branches, he may be furnished with a bed for three nights. The secretary of a branch in any town to which the traveler goes must direct him to any place where he thinks it likely he may find employment; and the officers of a branch have discretionary power to detain a member a few days, if they see a prospect of obtaining employment for him.

A member, being a pattern-maker, a millwright, or a machine-joiner, registered for "tool-benefit" and losing tools by fire, upon satisfactory proof of his loss, receives compensation therefor, though not to exceed £10. The amount is raised by an equal levy on the registered members of the above-mentioned departments of the trade.

Any free member,\* when visited by mental disease, bodily sickness, or lameness, (not occasioned by drunkenness or disorderly conduct, or any disease improperly contracted,) receives 10s. per week for twenty-six weeks, and 5s. per week so long as he continues ill, making a total of £19 10s. in fifty-two weeks.

When the funds of the society are £3, and upward, per member, exclusive of permanent investments, if  $7\frac{1}{2}$  per cent. of the members are out of employment, a limited number of the unemployed members may be assisted to emigrate to the amount of £6; but no member shall be allowed the benefit of this rule unless the number of unemployed members of the society in the place to which he wishes to emigrate is below  $7\frac{1}{2}$  per cent.

Any "free member," not more than 16s. in arrears, who, through losing a limb or having one disabled by accident or otherwise, or through blindness, imperfect vision, apoplexy, epilepsy, or paralysis, may be rendered permanently unable to follow any of the departments of the trade, provided his disability is not the result of intemperance or other improper conduct, will receive the sum of £100; subject to the condition that the amount must be refunded if at any future time the member is able to resume work.

A member in good standing who is not less than fifty years old, and who through the infirmities of age is unable to obtain the ordinary rate of wages, is entitled to a superannuation benefit, varying according to the length of time he has been in the society, as follows:

To members of less than twenty-five years' standing, 7s. per week.

To members of twenty-five years' and less than thirty-years' standing, 8s. per week.

To members of thirty years' and less than forty years' standing, 9s. per week.

To members of forty years' standing and upward, 10s. per week.

These payments are continued during the life of the member. A member of not less than eighteen years' standing in the society and not less than fifty years old, if disabled by any of the causes above mentioned as giving a title to the "accident benefit" of £100, may take his choice between that and the superannuation benefit.

\* This regulation is not applicable to a class of members who, on account of defective health on entering the society, have not been admitted to the "sick benefit," and have paid 2d. a week less than other members.

On the death of a free member who is not more than 16s. in arrears, £12 is paid to his widow, next of kin, or legal representative, for his funeral expenses. On the death of a member's wife, he receives £5 for her funeral expenses, leaving £7 for his own. If a member die while traveling in search of work, and his remains cannot be removed to his own home, the branch of the society nearest the place of his death is to take charge of the funeral, the expense of which must not exceed £6; and if his widow, nominee, or next of kin, apply for the surplus, (the remaining £6 of this "funeral benefit,") it is to be paid.

The salaries of officers (*i. e.*, of those to whom salaries are allowed) vary according to the number of members in the branch to which they belong, or to the nature and extent of their duties. Thus the salary of a branch secretary varies from £1 10s. per annum—the sum allowed for a branch comprising ten members—to £12 15s. in the case of branches having 360 members, the rules providing minutely for all intermediate numbers as well as for all in excess of 360. It may be noted here, *en passant*, that no member who keeps a public-house, or beer-house, is eligible to the position of branch secretary.

One of the most useful regulations of the society is that which relates to the finding of employment for members. A member out of employment and drawing "donation benefit," is required at stated times (usually every day) to sign a book known as "the vacant-book," which is either kept at the branch office, or, in the case of large towns where there are several branches, at some central office. In Manchester the "vacant-book" is an institution of such importance that the officer in charge of it receives a stated salary of £2 2s. per week, with an allowance of 7s. 6d. per week for a messenger, and has rent-free quarters, with coal and gas, at the society's office, where he is required to reside.

Any member who knows of a vacancy, either present or prospective, is required to give information of it within twenty-four hours to the secretary of the branch to which he belongs, and failing to do so is liable to a fine of 5s. A member on donation benefit refusing to accept employment, or neglecting to apply when informed of a vacancy, is suspended from donation until he obtains employment, unless he can show a satisfactory reason for his conduct.

Any secretary on receiving notice that men are wanted in a particular district, must send to that district any members of his branch who are out of employment and in receipt of donation or contingent benefit, if he considers them qualified for the vacant positions. The fare of members so sent is paid, and if they fail to obtain situations, their return fare is also paid to their own place of residence. The amount allowed, however, is not to exceed £1 10s. Any member on benefit refusing to remove to another place in order to obtain employment is suspended from donation, and, in some cases, may also be subjected to some further penalty. The regulations in regard to the "vacant-book" and the transmission of information in regard to vacant situations from one locality to another constitute the society a most effective intelligence-agency, both for particular localities and for the entire field over which its branches extend. Some other societies have similar regulations.

One of the society's rules is directed against piece-work, the acceptance of which, in shops where it has not already been introduced, incurs a fine of 10s. for the first offense, of 20s. for the second, and the penalty of expulsion for the third. Any member taking work by the piece is, moreover, required to share in equal proportions with his fellow-workmen (they being members) all that he earns over the regular weekly

wages; and any member working for or under any piece-master, and not receiving an equal share in any such surplus, is required to leave his employment.

Any member boasting of his independence toward his employer or employers in consequence of his membership in this society is subject to a fine of 2s. 6d. for the first offense, 5s. for the second, and 10s. for the third or any subsequent repetition of the offense.

The above is only a brief statement of some of the leading provisions of the constitution or rules of the Engineers' Association. Many minor regulations for special cases, as well as the provisions in regard to the care and investment of funds, the equalization of funds among the branches, or, more properly, the annual settlement between debtor and creditor branches, the election, qualification, and duties of officers and committeemen, along with various other matters of minor importance, are omitted. The governmental organization of societies of this class is, however, illustrated to some extent in the abstract of the rules of the Amalgamated Society of Carpenters and Joiners, to be presented below.

#### AMALGAMATED SOCIETY OF CARPENTERS AND JOINERS.

The following table shows the number of branches, number of members, and cash balance of the Amalgamated Society of Carpenters and Joiners of Great Britain, Ireland, and America,\* at the end of each year from 1860 to 1874, inclusive:

TABLE I.

Years ended December 31.	Number of branches.	Number of members.	Cash balance on hand.		
			£	s.	d.
1860 .....	20	618	321	3	2½
1861 .....	32	650	593	12	0½
1862 .....	38	949	849	8	10
1863 .....	53	1,718	2,042	11	3
1864 .....	81	3,279	4,566	10	0½
1865 .....	134	5,670	8,320	13	7
1866 .....	187	8,002	13,052	4	3½
1867 .....	203	8,022	15,153	11	2½
1868 .....	218	8,736	17,179	16	1
1869 .....	224	9,305	17,626	14	6½
1870 .....	236	10,178	17,568	19	4
1871 .....	242	9,764	16,829	7	1½
1872 .....	226	11,236	19,849	8	6½
1873 .....	249	12,789	30,450	11	3½
1874 .....	265	13,890	†38,125	0	0

The following table shows the expenditures for benefits of the Amalgamated Society of Carpenters and Joiners for the year ended December 31, 1873, and for the thirteen and one-half years from the organiza-

\* This association has 265 branches, of which 231 are in England and Wales, 11 in Ireland, 5 in Scotland, 14 in the United States, and 4 in Canada. The branches in the United States comprise 447 members. Of the 14 branches, 2 are in New York, and 1 each in Albany, Baltimore, Boston, Chicago, Cleveland, Fall River, Newark, Philadelphia, Pittsburgh, Saint Louis, San Francisco, and Washington, D. C. The returns from the United States in the monthly report for January, 1875, represent the state of trade as "bad," "dull," or "slack," with the exception of San Francisco, where it is reported "good," and Newark, as "improving." The returns from the English and Welsh branches generally report trade as "moderate," while those from the Irish are chiefly unfavorable.

† The cash balance for 1874 may be subject to a slight correction.

tion of the society in June, 1860, to the same date, with the average cost per member on each account:

TABLE II.

Items of expenditure.	Expenditures for year ended December 31, 1873.			
	Aggregate for the society.			Average per member.
	£	s.	d.	s. d.
Donations .....	3,085	0	0	4 10
Tools .....	566	0	0	10½
On account of sickness .....	5,865	0	0	9 2
On account of funerals .....	1,248	0	0	1 11½
On account of accidents .....	300	0	0	5½
To superannuated members .....	97	0	0	1½
On account of trade privileges .....	2,964	0	0	4 7½
Benevolent grants .....	466	0	0	8½
Grants and loans to other trades .....	155	0	0	3
Total .....	14,746	0	0	

Items of expenditure.	Expenditures for 13½ years ended December 31, 1873.			
	Aggregate for the society.			Average per member.
	£	s.	d.	£ s. d.
Donations .....	45,917	0	0	7 00 9½
Tools .....	4,286	0	0	13 1½
On account of sickness .....	40,593	0	0	6 4 4½
On account of funerals .....	7,834	0	0	1 4 0
On account of accidents .....	3,790	0	0	11 7½
To superannuated members .....	617	0	0	1 10½
On account of trade privileges .....	17,436	0	0	2 13 5½
Benevolent grants .....	3,254	0	0	9 11½
Grants and loans to other trades .....	720	0	0	2 2½
Total .....	124,477	0	0	

The objects of this society, as defined in its own rules, are to raise funds for the advancement and protection of the trade; for the mutual support of its members in case of sickness, accident, or superannuation; for the burial of members and their wives; assisting emigration; replacing tools lost by fire, water, or theft; and for assistance to members out of work; also to form a contingent and benevolent fund for the purpose of granting assistance in cases of extreme distress not otherwise provided for in the rules.

Each branch of the society is to appoint its own officers and conduct its own affairs, and no branch is to have more than three hundred members.

On the first meeting-night in April, July, and October, the income and expenditure of the past quarter, and at the first meeting in January the income and expenditure for the past year, must be read over by the auditors and submitted to the meeting in presence of both the old and new officers; and in no case may the old officers leave before the report has been read over.



In any large town or district where there are two or more branches, they may hold conjointly a special summoned meeting of their branches whenever occasion requires; and all resolutions passed at such meetings must be entered on the minutes of each branch. They are also made binding upon the several branches in the district, and cannot be altered, rescinded, or set aside except by consent of a majority of the members present at another summoned meeting of the district branches.

Upon any question which under the rules of the society is required to be decided by the votes of a majority of its members, these votes must be taken at summoned meetings of all the branches; and the numbers voting on each side must be transmitted to the general secretary, who must add them up and publish the results to the branches, the question being determined by a majority of all the votes cast and not by a majority of the branches.

The entrance-fees vary from 7s. 6d. (when the candidate is under twenty-five years of age) to £1 15s., (when he is forty-four years of age and under forty-five.)

Candidates for membership must be in good health, must be good workmen and have worked five years at the trade, must be persons of steady habits and good moral character, and not less than twenty-one nor more than forty-five years of age. They must not belong to any other trade society or enter one after their admission into this. No person may be admitted who has acted contrary to the interests of the trade or has been excluded from any other society for misconduct, unless such restitution be made or such satisfaction given to injured parties as may be ordered by the executive council of the society or by the branch to which the candidate seeks admission.

To be entitled to all the benefits of the society a member must pay a contribution of 1s. per week and 3d. per quarter to the contingent and benevolent fund. A contribution of 9d. per week and 3d. per quarter to the contingent and benevolent fund entitles a member to all the benefits except that for the sick.

All moneys subscribed by the members of the society become the property of the society generally, and not of the branches to which the members respectively belong; \* and any branch leaving the society forfeits its share in the general fund.

Whenever it is found that the funds of the society have sunk below an average of £1 per member, the executive council has the power to assess upon each member such sum as is necessary to raise the funds to the amount just mentioned. Special levies may also be made for other purposes, in cases of emergency; but such a levy on the society at large requires the consent of two-thirds of the members present at special meetings of the branches held to determine the question; and local levies require the consent of a majority of the members present at a special meeting of the local branch or branches, as well as the approval of the executive council of the society.

Special committees are elected by the separate branches, (or by the combined branches of a district in which there are two or more,) for the management of trade movements in connection with strikes, lock-outs, &c.; and special auditors are elected for the management of the accounts in such movements, which are kept entirely distinct from the ordinary accounts of the society.

The principal authority in the association is vested in a general council, consisting of sixteen members, each representing one of sixteen dis-

\* This is also a rule of the Operative Stone-mason's Society, and of some other associations.

tricts into which the territory over which the society extends is divided, and each being elected at an appointed time by a majority of the votes cast in meetings of the several branches within the district which he represents. Each branch may send to the general secretary the name of some eligible member within the district in which it is situated, to be submitted to the various branches within the district as a candidate for the general council. The nominations are to be made about three months before the election, and a list of the candidates proposed is sent to all the branches by the general secretary. The election for members of the general council takes place once in three years, and if a vacancy occurs during the term for which the council holds office, it is filled by the candidate who, at the preceding election, received the next to the highest vote.

The general secretary is elected by a majority of the votes cast in all the branches within the association. He is paid the expense attendant upon moving himself and his family from the place where he resides to the general office, where he is furnished with a rent-free residence, and receives a salary of not less than £3 per week, with certain other allowances for special services and for assistance.

An executive council, consisting of six members, elected by the branches situated within a radius of twelve miles from the general office, is invested with a degree of supervision over that office and over the business of the secretary, as well as with the power of determining various questions affecting the society at large.

The general council, whose members are from all parts of the kingdom and from foreign countries, meets only once in three years, except in special emergencies; and alterations in the rules of the association can only be adopted at alternate triennial meetings. All such alterations must be submitted to the votes of the members in the branch meetings, and any change in the objects of the society, as set forth in its first rule, requires the consent of three-fourths of the members. On minor matters, the general secretary is authorized to obtain the views of the general council, by letters addressed to its several members. In cases of emergency the general council is authorized to hold meetings without awaiting the attendance of the member representing the American district.

The benefits offered by the society may be summarized as follows:

Unemployed (or donation) benefit, 10s. per week for twelve weeks, and 6s. per week for twelve weeks more; for leaving employment under circumstances satisfactory to the branch or to the executive council, 15s. per week; tool benefit to a member of not less than six months' standing, not to exceed £5; sick benefit, for twenty-six weeks, 12s. per week, and 6s. per week thereafter as long as illness continues; funeral benefit, £12, or to a member of only six months' standing, £3 10s.; accident benefit, to a member totally disabled, £100, and to a member partially disabled, £50; superannuation benefit to a member of twenty-five years' standing, 8s. per week for life, and 7s. per week for life to a member of eighteen years' standing; emigration benefit, £6; other benefits in the nature of benevolent grants, according to circumstances in cases of distress. It may be remarked here that the rules and the governmental organization of this society are regarded as being among the best possessed by any of the trades-unions. The regulations in regard to vacant-book are similar to those of the engineers.

#### ASSOCIATED CARPENTERS AND JOINERS OF SCOTLAND.

In the report of this society for the twelve months ended October 31, 1874, the number of its members is stated at 5,781, of whom 5,224 were

subscribers to all its benefits, the remaining 557 not being subscribers to the fund provided for sickness, superannuation, and funeral benefits. Its expenditures for the several objects for which it is constituted, as well as for rents, taxes, salaries, &c., during the twelve months just named, were as follows :

	£	s.	d.
Sick-allowances.....	1,843	0	0½
Bonuses to three disabled members.....	150	0	0
Funeral-allowances.....	518	0	0
Tools compensation.....	372	11	11½
Strike-allowance.....	409	5	6
Grant to agricultural laborers' union.....	50	0	0
Victimized allowance *.....		15	3½
Hall rents.....	399	18	9½
Taxes and hall expenses.....	84	4	6
Stationery and postage.....	126	14	11
Printing and advertising.....	415	4	0½
Carriage of parcels.....	6	9	3
Doctors' accounts.....	1	19	6 •
Lost time.....	11	10	8
Branch boxes, &c.....	12	3	11
Delegations.....	26	18	7
Law expenses.....	6	3	9
Expenses of joint meetings.....	51	8	8½
Salaries and commissions.....	827	15	7½
Total.....	5,314	3	0½

The income of the society for the year ended as above exceeded the expenditure by £1,441 5s. 3½d. This increases the accumulated fund to £9,071 8s. 8½d., of which £7,554 5s. 6d. belong to the trade account, and £1,517 3s. 2½d. to the benefit account. The number of members added to the society during the past year was 774, and, according to a statement presented by the secretary, it now comprises nearly one-half of the members of the trade in the districts in which it has branches, the total number of journeymen in those districts being 11,836, while the membership of the society is 5,781.† The secretary calls attention to the fact that during the year several trades have had protracted strikes, while the members of some societies, notably the agricultural laborers, have been compelled to fight for the right of determining whether they should be union men or not. In some of the trades wages have been reduced, but among the joiners the changes that occurred during the year were usually favorable to the workmen. The secretary estimates that there has been an average rise of 2s. a week in journeymen's wages, while several of the society's branches have obtained a reduction of hours. The only disputes with employers during the year were those of Dumfries, Dunfermline, Perth, and the Clyde. The latter was short and decisive, lasting but a few days; but the one at Dumfries was protracted and bitter, continuing for a month.

This society was organized and a code of rules for its government adopted at a conference of delegates from the carpenters and joiners of the principal places in Scotland, which was held at Edinburgh in September, 1861. The rules have since undergone three revisions, the last having been completed in August, 1873. The society is divided into two sections, which may be called respectively the "trade section" and the "benefit section," although some of the allowances made to members of the trade section might very properly be classed as benefi-

\* The "victimized allowance" is one which the rules provide for the benefit of members discharged from their situations for acting as delegates, or otherwise serving the association. It is a regular payment, equal to the wages lost. The "victimized allowance" in 1873, exceeded £100.

† The number of apprentices in the same districts is 3,310.

cial allowances. The fee for admission into the trade section alone, is 5s., and the dues 3d. per week. For admission into the benefit section the fee is from 2s. to 10s., according to age of applicant, and the dues 4d. per week. Besides these payments, members are liable to special levies for emergencies or to make up deficiencies in the funds; but such levies must be authorized by the vote of the society.

On the occasion of a cessation of work in consequence of a strike, lock-out, or any cause regarded by the society as adequate, each "free member" so thrown out of work, upon conforming to certain requirements, receives an allowance of 12s. a week as long as the stoppage of work continues. A "free member" losing his tools by fire, water, or theft, is entitled to an allowance equal to the value of the tools lost, provided it does not exceed £20; and he is also entitled to the value of a tool-chest, not, however, in excess of £2. Every member who has paid his full entrance-fee is entitled to a bonus of £50 in case of any accident disabling him from ever again resuming his regular employment. It is an essential condition, however, to the allowance of this benefit, that the accident shall not have been caused by intemperance or improper conduct. The allowance in sickness is 12s. per week for thirteen weeks, 9s. per week for thirteen weeks more, 7s. per week for twenty-six weeks, and then 5s. per week while illness continues. The funeral allowance on the death of a member is £12, to be paid to his wife, nominee, trustee, or next of kin. The allowance on the death of a wife (if she be registered) is £5, which, however, is not allowed on the death of a second wife, if it has been drawn on the death of the first. The superannuation benefit is 3s. 6d. per week to a member over fifty years of age and of ten years' standing in the society, and 5s. per week to one who has been fifteen years in the society. The claim to superannuation, however, is not allowed as long as the member can earn more than half the usual wages of the locality in which he is employed, in any business or calling in which he can obtain employment.

The various branches of the association are required to forward to the executive committee as often, at least, as once a quarter, all moneys in their possession not needed for their immediate local expenditure; and branches not having sufficient funds for the latter purpose may, according to prescribed forms, call upon the same committee for what they require, provided, of course, that it be money to which they are entitled in accordance with the rules of the society. All moneys sent to the executive committee and not immediately wanted are to be deposited in such bank or banks as may be agreed upon, a portion (not to be less than £500 nor more than £1,000) to be deposited as a working fund in the name of the association, three trustees, and the central corresponding secretary, and the remainder to be deposited as "a sinking fund" in the name of the association, eight trustees, and the central corresponding secretary. The three trustees of the "working fund" are to be elected by the central branch\* and their names submitted to the society at large. If no objection be lodged against them within fourteen days after such submission, their election is to be valid. The eight trustees of the "sinking fund" are to be elected respectively by the eight branches having the largest number of members, and their names submitted to the society, as in the other case. No money can be drawn from the working fund except by the central corresponding secretary and two trustees, and none can be drawn from the sinking fund without

\* At intervals of three years elections are held to determine what branch of the society shall be the "seat of government;" and the branches situated within a radius of three miles from the branch elected have the prerogative of electing the executive committee, which consists of nine members, who hold office for one year.

the signature of the same officer and six trustees; and the trustees are to sign no order for drawing money without a letter from the executive committee, signed by the chairman, authorizing them to do so. The society each year elects an auditor who serves for three years, so that there are three auditors, whose respective terms of office terminate at yearly intervals. Besides auditing the accounts of the society at the end of each year, these officers are required to assist the central corresponding secretary in making up "an abstract of whatever may be considered of interest to the society, either as a *résumé* of the past year or as a guide to future proceedings."

No part of the funds of the association can be applied to any purpose other than those set forth in the rules, except by a three-fourths majority of all members voting in meetings of the branches specially called after due notice for the determination of the question.

No alteration can be made in the rules (or laws) of the society without the assent of two-thirds of the members; and in years when a delegate meeting is held all proposed alterations must be first submitted to such meeting, and by it (if at all) submitted to the society. No delegate meeting may "abrogate any of the principles of the society," (*i. e.*, the allowance on cessation of work, the insurance of tools, or the accident, sickness, superannuation, or funeral benefit,) except by the consent of three-fourths of the members, which votes must be registered accordingly.

#### THE AMALGAMATED TAILORS' SOCIETY.

The following table shows the principal items in the expenditures of the Amalgamated Tailors' Society from May to December, 1869, and each year from 1870 to 1873 inclusive, together with the number of members, the average expenditures per member, the number of members in receipt of sick and traveling benefits respectively, and the number of deaths of members and members' wives:

	1869.	1870.	1871.	1872.	1873.	Total for entire period.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Expenditures on account of sick benefit.....	901 6 7	1,647 12 7	1,931 12 10	2,477 7 8	2,937 7 10	10,095 7 6
Average per member on account of sick benefit.....	4 8	9 2½	7 8	5 6	4 9	.....
Expenditures on account of funerals.....	261 0 0	576 8 2	767 9 9	998 7 8	1,420 18 6½	4,094 4 1½
Average per member on account of funerals.....	1 3½	2 10½	3 4	2 2½	2 5½	.....
Expenditures on travelers' account*.....	202 5 6	262 18 6	226 2 8	426 16 0	641 4 5½	1,759 7 1½
Average per member on travelers' account*.....	1 0½	1 3½	11½	11½	1 0½	.....
Expenditures on account of trade benefits, strikes, and lock-outs.....	45 8 4	200 16 7	55 1 6	283 17 6	622 5 9	1,207 9 8
Average per member on same account.....	2½	1 0	2½	7½	1 0½	†
Number of members at end of year.....	3,994	4,006	4,914	9,061	112,335	.....
Number of members receiving sick benefit.....	§	550	658	756	1,122	3,086
Number of members receiving travelers' benefit.....	298	167	252	383	668	1,768
Number of deaths of members and members' wives.....	36	91	102	140	189	556

\* Members traveling in quest of employment.

† To these expenditures may be added an item of £235, granted to other associations in 1873, the first year that the society had set apart a contingent fund for that purpose.

‡ The number of members at the close of 1874, as shown in the list of associations represented at the annual trades congress, was, in round numbers, 14,000.

§ Not furnished.

The aggregate income of this association for the year 1873 was £13,543 12s., and the aggregate expenditures for the same year, £11,148 14s. 9½d., leaving a balance of £2,394 17s. 2½d. on the year's account; which, added to a balance of £4,609 14s. on hand at the close of the previous year, makes the total accumulated fund £7,004 11s. 2½d.

The terms of admission into the Amalgamated Tailors' Association are as follows: Young men in the last year of their apprenticeship pay an entrance-fee of 1s.; tailors, under 25 years old, 2s. 6d.; under 30 years, 5s.; under 35 years, 7s. 6d.; under 40 years, 10s.; under 45 years, 15s. From 45 years old up to 50 the increase in the entrance-fee is at the rate of 2s. 6d. per year. Tailors over 50 years of age may enter the society, but not as members entitled to all its benefits. The payment of an entrance-fee of 5s., a regular contribution of 3½d. per week, and the usual quarterly subscription to the management and contingent funds entitles them to trade and traveling benefits, and on their death a "funeral benefit" of £4 is paid to their next of kin or nominee lawfully appointed.

The entrance-fee for persons not desiring to participate in the "sick-benefit" is as follows:

For tailors under 30 years of age, 2s. 6d.; not under 30 but under 40 years, 5s.; not under 40 but under 45 years, 7s. 6d.; not under 45 but under 50 years, 10s.

In the case of new branches entering the association the members are required to pay the current quarterly subscription and an entrance-fee according to age as follows:

Members under 25 years of age, 2s. 6d.; not under 25 years of age but under 30, 5s.; not under 30 years of age but under 50, 7s. 6d.

To entitle a member to full participation in all benefits the regular payments are 6d. a week, 4d. a quarter to management, and 1s. per annum (payable in the month of June) to "a contingent fund," which is devoted to the furtherance of the principles of association. Members not wishing to participate in the sick-benefit pay 3½d. per week, and to the management and contingent funds the same as other members.

On quitting employment, under circumstances satisfactory to the branch or to the executive council, a member receives 12s. per week. The "sick-benefit" for the first thirteen weeks is 10s. per week; for the second, 8s.; for the third, 6s.; for the fourth, 4s.; afterward (while illness continues,) 2s. 6d. per week. The superannuation-benefit, to members of twelve years' standing, is 2s. 6d. per week for life, and 5s. per week for life to members of twenty years' standing. The traveling benefit is 1s. 4d. per day in each branch for not exceeding sixty days in the year, or to 1s. per day and a bed.

The general management of the affairs of the association is vested in an executive council consisting of nine members, among whom are included the president and secretary. The ordinary executive functions devolve chiefly on the last two officers, but the executive council meets once a quarter, and may be convened more frequently if circumstances require it. The members of this council, including the president and secretary, are elected biennially at conferences composed of delegates from the branches, the number of delegates being proportioned with more or less exactness to the number of members to be represented. The objects of the association are thus stated in a recent address of the executive council to the operative tailors of the kingdom:

1. To improve morally, socially, and pecuniarily the means and position of our members and the trade generally, by forming a fund by contributions of our members on well-considered bases, and from statistics of those associations who have prospered by experience.

2. To provide a safe and profitable investment for the contributions and subscriptions of our members against sickness, disease, and death, as well as economizing the strength and power of unity for the welfare of our trade, always seeking an amicable settlement of trade-disputes rather than resorting to the two-edged weapon of settlement by strikes. This is accomplished by raising capital or funds that may be available in case just and conciliatory measures fail, and then, and then only, resorting to those measures which our unity and strength, combined with accumulated funds, can accomplish, our system combining all the facilities of exchange in investing our labor to profitable advantage, and insurance and friendly societies for benevolent purposes.

3. To promote the intellectual and material benefit of our members and the trade generally, by providing means of social intercourse and discussion of topics for the elevation of the trade generally.

4. To afford means of carrying out the repeal of all laws that have so hurtfully affected the position of workmen hitherto, and to free labor from restrictive influence, at the same time fostering habits of prudence and forethought.

5. By means of our rules, encouraging those who may have the welfare of the trade at heart, to become ornaments to our calling, and leaders to a better and more elevated position of our class.

In the same address it is claimed that during the year 1873 "wages were advanced and trade privileges obtained in no less than fifty-four cities and towns in England and Wales," and that in 1874 (up to November,) "no less than fifty-six more cities and towns," where the society has branches, "obtained advantages in the same direction."

#### SOCIETY OF OPERATIVE MASONS.

The following table contains a condensed statement of the expenditures of the Society of Operative Stone-Masons from September 24, 1840, to November 23, 1873, specifying the different items of expenditure, and also distinguishing between expenditures for trade purposes and expenditures for beneficial objects :

##### 1. Expenditures for trade purposes :

To strike pay.....	£56,867	11	7
Gifts to other trades.....	3,206	8	8
Loans .....	400	0	0
Delegations in general.....	10,256	3	11
Total for trade purposes .....	70,730	4	2

##### 2. Expenditures for benevolent purposes :

Sick-allowance.....	£54,828	0	9½
Funerals.....	40,253	14	4½
Travelers* .....	54,453	14	9
Surgeons' fees.....	2,789	15	10
Gifts for charitable purposes.....	515	14	3
Hospital subscriptions.....	2,941	1	0
Disabled members (197) .....	17,941	0	0
Friends of 106 members killed .....	5,100	0	0
Orphan children.....	292	9	6
Master and workmen's actst.....	32	16	0
Superannuation of members.....	8,636	13	1½
Legal expenses in defending prosecuted memberst.....	3,483	6	1½
Total for benevolent purposes .....	191,268	2	9

Grand total.....	261,998	6	11
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From this statement it appears, therefore, that during the thirty-three years which it covers the expenditures for benevolent purposes exceeded the expenditures for strikes and other trade purposes by £120,537 18s. 7d.

\*Members traveling in search of work.

†These two items might perhaps have been classified with the expenditures for trade purposes.

This society is formally known as "The Friendly Society of Operative Masons of England, Ireland, and Wales." Its members have the option of contributing to the trade-fund alone, or to that and to any one or more of the benefit-funds in the advantages of which they may wish to participate. The entrance-fee to the trade department is 2s. 6d.,\* and the contributions 6d. per week. For admission to the trade and sick fund the fee to a person under 24 years of age is 2s. 6d.; over 24 and under 28, 5s.; over 28 and under 32, 7s. 6d.; over 32 and under 35, 10s. Persons over 35 years of age are not admitted to this section of the society. The contributions to the sick-fund are 4d. per week. On the death of a member in good standing his widow, nominee, or next of kin receives £12 for his funeral expenses. On the death of a member's wife (provided he has paid 1s. for her registration and 6d. per quarter in addition) he receives £10; but a wife over forty years of age cannot be registered for this benefit.

The payment of 4s. 1d. a week to a children's fund entitles a member to £2 on the death of a child; but still-born children, or children born out of wedlock, are not included in this allowance.

The superannuation-benefit is as follows:

To members of ten years' standing.....	5s. per week.
To members of fifteen years' standing.....	7s. per week.
To members of twenty years' standing .....	9s. per week.
To members of twenty-five years' standing .....	10s. per week.

The sick-benefit is 12s. per week for twenty-six weeks, and 6s. per week until recovered; but disease incurred by fighting, drunkenness, or other immoral conduct, is excluded from this benefit.

The accident-benefit is £100 to a member permanently disabled in connection with the prosecution of his trade, or while transacting society-business, unless the accident disabling him was incurred by his own misconduct, drunkenness, or willful neglect. In case of accidental death occurring to a member under similar circumstances, his widow, nominee, or next of kin is entitled to £50 from the society's funds. An allowance of £50 is also provided for cases of paralysis or permanent loss of vision.

The benefit to members traveling in search of work varies from the provision of a bed alone up to a bed and 1s. 3d. a day, according to the standing of the member and the circumstances of the case; each case, however, being distinctly provided for in the rules.

In cases of "legal disputes" with employers, (*i. e.*, disputes entered into in accordance with the rules of the society,) members suspending work are allowed 12s. per week from the society's funds, and any delegate or officer of the society who is discharged in consequence of his holding such a position is allowed 18s. per week, provided that he have not used abusive language toward the employer or foreman.

When the members of the society in any town or locality desire to obtain better terms from their employers, the rules require that they shall use "their utmost endeavors, by correspondence, interviews, or a conference, consisting of an equal number of employers and employed," to arrive at "an amicable agreement;" and "only after all such means have failed to secure the desired alteration shall they be justified in suspending work."

When a desire for an advance of wages, a reduction of working-hours,

\* The fees for re-admission of persons who have gone out of the society or lost their membership through falling in arrears, increase with the number of admissions, the fee for the fifth admission being 20 shillings.



or other improvement in the conditions of employment is manifested in any lodge, the secretary is required to report the fact to the central committee of the association, stating the number of members who would be thrown out of work in case of a strike, the number entitled to benefit, the state of trade and position of the society in the neighborhood, and the number of members of the lodge who voted respectively for and against an application to be sustained by the society in a strike; and no such application is to be entertained unless it has had the support of a two-thirds majority in a summoned meeting of the lodge, the votes having been formally taken by ballot. When such an application is received the central committee is to appoint a deputation from three different lodges (including the one from which the application emanates) to proceed to the locality, examine as to the state of trade, the number of members entitled to benefit, and other matters, and to make a report which is to be submitted to the various lodges in connection with the application. A vote of the society is to be taken within twenty-eight days, the question to be decided for or against the application in accordance with the majority of the votes cast. In cases where employers attempt to reduce the current rate of wages, to introduce piecework where it has been abolished, to increase the hours of labor, to infringe upon the established meal-hours, or to employ as masons persons who have not learned the trade, a two-thirds majority in a summoned meeting of the lodge to which the members affected by such an infringement belong, shall be sufficient to justify them in resisting it by a suspension of work; and in case the employer attempts to enforce the infringement before a lodge meeting can be held, the decision arrived at by a two-thirds majority of the members working for such employer is to be binding; but they must wait upon the employer or foreman before suspending work; and in all cases the central committee must be informed as to the particulars of the dispute.

The members of this society bind themselves (by voluntary offer) to give moral and material aid to other trades-associations. Any lodge applied to for this purpose is to investigate the case, and, if the cause be thought worthy of support, the amount of assistance required is to be made known to the central committee, and by them to be submitted to the society, a vote of which, in lodge meetings assembled, is to be taken within twenty-eight days.

All lodges are required to transmit weekly to the central committee any money in their possession in excess of £10 not required for their immediate local expenditures.

A printed list is to be published annually by the central committee, showing the names of members who have worked in opposition to the society, of the members (or officers) who have committed frauds or defalcations, and of members who are in arrears under local levies.

Members are prohibited from working overtime, which is condemned as a practice tending to keep other members out of employment, and members who persist in violating this rule, in opposition to their own lodge, are liable to a fine not to exceed £2. There are certain exceptions to this rule, however, in cases of accident or necessity. Where subcontracting or piecework is abolished, members are bound by these arrangements. Where working by artificial light has not been the rule, lodges are authorized to resist its introduction.

Should the funds of the society fall below £3,000, the central committee may recommend a special levy upon the members of the society, but such levy must be submitted to a vote of the society and approved by a majority before it can be carried out.

The opinion of the society, as to a revision and reprint of existing rules, is to be taken once in three years; and when such revision is decided upon, the revising committee is to be elected by the society, the vote being taken in meetings of the lodges specially held for the purpose.

This society maintains intimate reciprocal relations with the one to be noticed next below.

## UNITED OPERATIVE MASONS' ASSOCIATION OF SCOTLAND.

The total membership of this association in December, 1874, was 10,652, showing an increase of 1,208 members since December, 1873. The number of members belonging to the trade section alone was 9,990. The number belonging to both the trade and sick fund sections was 662. The expenditures for 1874 may be summarized as follows:

*For trade purposes.*

	£	s.	d.
Strike pay .....	408	0	0
Assisting men to leave strikes* .....	92	18	0
Wages of pickets, strike committees, and cross committees .....	45	12	6½
General delegations .....	102	11	1
Voted to Edinburgh and Leith millers .....	15	0	0
Voted to English agricultural laborers .....	100	0	0
Voted to Edinburgh Trades' Council .....	5	0	0
Voted to Trades-Union Parliamentary Committee .....	15	0	0
<b>Total .....</b>	<b>784</b>	<b>1</b>	<b>7½</b>

*For benevolent purposes.*

Sick allowance .....	480	0	0
Accident provisions .....	400	0	0
Surgeons' fees .....	15	14	0
Funeral allowance .....	1,670	0	0
<b>Total for benevolent objects .....</b>	<b>2,566</b>	<b>4</b>	<b>0</b>
<b>Total for trade purposes .....</b>	<b>784</b>	<b>1</b>	<b>7½</b>
<b>Grand total .....</b>	<b>3,350</b>	<b>5</b>	<b>7½</b>

Excess for benevolent objects .....	1,782	2	4½
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The financial condition of the society on the 3d of December, 1874, is stated as follows:

	£	s.	d.
In bank, December 4, 1873 .....	7,800	18	10
Deposited since that date .....	1,990	00	00
Interest accrued up to 3d December, 1874 .....	254	12	7
	<b>10,045</b>	<b>11</b>	<b>5</b>
Drawn out of bank during year .....	445	18	10
<b>Amount in bank December 3, 1874 .....</b>	<b>9,599</b>	<b>12</b>	<b>7</b>

\* This probably means assisting men to leave localities where strikes were in progress, and go elsewhere in search of work.

	£	s.	d.
In hands of lodge treasurers.....	330	15	9½
In hands of treasurer of central committee.....	9	10	2
Value of hall in Edinburgh.....	200	0	0
Total worth of the association December 3, 1874.....	10,139	18	6¾
Total worth of the association December 4, 1873.....	8,248	13	8¾
Net gain during the year.....	1,891	4	10

The number of lodges in the association is about 100, with an average of over 100 members per lodge. The returns made to the central committee, by the lodge secretaries, indicate that a large majority of the men belonging to the trade in the places where the society has branches are included in its membership.

The auditing committee, in submitting their financial statement, take occasion to congratulate the society on "the steady increase of wages in the various districts, and the obtaining of such without any great sacrifice, either as regards time or money. The past year," they say, "has also been free from strikes of any great magnitude." They further observe, "that a number of lodges have taken up the apprentice question, with the apparent determination of having all who may desire to learn the trade compelled to serve a regular apprenticeship," a result which they think, "would prove an inestimable boon to the trade in future years." Referring to the combination of employers in a national federation, they say, "we must meet federation with federation;" and, although that plan has not hitherto succeeded "from the fact that the largest and strongest unions stood passively aloof" from the movement, they express the hope that a federation of trades-unions will ere long be formed, "wielding a power greater than the national federation of capitalists and employers." Referring to the movements on foot among the trades organizations to secure the repeal of the "criminal law amendment act," they ask, "Why not a movement to raise from our trades-organizations a great political federation? for then, and then only, with the ballot and working as one, will class criminal legislation be swept away, and our interests receive more attention at the hands of our legislators."

In its plan of organization, benefits, and rules of action there is considerable resemblance between this society and the one last noticed, although there are many minor differences, and the contributions, fees, and allowances are not in all cases the same. The rules of the English society provide that members of the Scotch society coming to England shall be admitted free, and that members of the English society going to Scotland shall be admitted into the Scotch society on the same terms; but by a curious discrepancy the Scotch rules provide for the payment of half a crown for admission in either case. It is probable, however, that the provision in the English rules is the one finally agreed upon, these rules having been revised as late as December 24, 1874, while the Scotch rules were revised about a year earlier. In both cases conformity to the rules of the society entered is of course a condition of admission.

The two societies agree that in order to effect a mutual understanding between them, a fortnightly return of correspondence shall be established, the more especially to avert the evil tendency caused by an influx of hands from either country in case of strikes; and that a printed copy of the fortnightly returns of each society (divested of their

financial reports) shall be regularly transmitted to the other. These two societies comprise within their ranks nearly 35,000 of the operative stone-masons of the United Kingdom.

#### UNITED SOCIETY OF BOILER-MAKERS AND IRON-SHIP BUILDERS.

The following table shows the expenditures of the United Society of Boiler-Makers and Iron-Ship Builders of Great Britain for the year ended December 31, 1873, and for the seven years ended at the same date, with the average cost per member on each account:

	Expenditures for year ended December 31, 1873.			Expenditures for seven years ended December 31, 1873.		
	Aggregate for the society.		Am't per member.	Aggregate for the society.		Am't per member.
	£	s. d.	s. d.	£	s. d.	£ s. d.
On account of sickness.....	4,622	4 0	7 5½	30,314	0 0	3 10 8½
Relief to members traveling.....	1,091	4 3	1 9	19,031	0 0	2 4 4½
On account of funerals.....	1,418	0 0	2 3½	7,873	0 0	0 18 3
On account of trade disputes.....	281	0 0	0 5½	3,484	0 0	0 8 1½
Surgeons' salaries.....	1,969	10 5	3 2½	9,227	0 0	1 1 6
To superannuated members.....	1,122	13 2	1 9½	6,617	0 0	0 15 9½
Salaries.....	1,153	11 2	1 10½	(*)		.....
Fares of members to situations.....	141	9 7	0 2½	400	0 0	0 0 11
Home donations.....	97	10 0	0 1½	1,457	0 0	0 3 4½
Bonuses.....	180	0 0	0 3½	1,285	0 0	0 3 0
Total.....						

\* The expenditures for officers' salaries during the seven years are not included in the return.

The number of members at the end of 1873 was 13,137; the average number of members for the seven years ended at the same date was 8,573.

The number of members on the 30th of September, 1874, was 14,487; the number of lodges 143; and the cash balance in the hands of the association, £49,208 2s. 6d.

The benefits paid by this society, apart from relief in trade disputes, are in the form of allowances to the sick, unemployed, and superannuated, and to those laid up through accidental injuries, besides doctors' bills, funeral expenses, bonuses, and fares in going to situations.

## AMALGAMATED SOCIETY OF RAILWAY SERVANTS.

This society was formed in the beginning of the year 1872, and consists of an executive council and 155 branches. In the report of the general secretary for that year, the number of members constituting said society is represented as being 17,247, with funds on hand to the amount of £2,569. This he regards as being highly encouraging. He says that after the heavy expenses which must naturally fall upon a gigantic society at its commencement, and considering the short time that many of the branches had been opened, and the number of men who, after having joined the society and obtained through its influence that which they sought, immediately abandoned it, such an accumulation of funds speaks well for the future. The improvement in the condition of many of the railway-men which the society had been able to effect in this short time speaks well for the future power of the society when its members will be increased, its funds augmented, its influence extended, and its organization completed. The executive council, he states, is decidedly opposed to strikes, being of the opinion that if railway men will only be firmly united, they will gain that to which they are entitled without having recourse to any stoppage of work.

The funds of the society are arranged under the following heads, namely:

Delegate fund.

Emigration fund.

Investment fund.

Strike fund.

Superannuation fund.

Amount received by the society during the six months ended June 30, 1874:

For dues.....	£245	4	2
For entrance-fees.....	193	3	11

The table on the opposite page affords interesting information in regard to the condition and operation at different periods of the associations therein named.

Table showing the number of members, the income, the expenditure, and funds in hand, of five important associations, with the number, character, and objects of the strikes.

Names of societies.	Date.	Number of members.	Total income.	Paid for benefits.	Paid for strikers.	Total expenditure.	Funds in hand.	Character of strikes.	Object of strikes.
London Society of Compositors.	1860	2,300	2,443 17 4	875 15 6		(1) 2,006 10 8	3,006 11 8		
	1870	3,300	8,079 9 9	4,530 2 2	1,808 1 0	(2) 7,407 3 6	3,375 6 2	1	To maintain existing scale of wages.
	1871	3,550	5,687 11 2	2,985 1 8		(3) 5,104 10 1	4,483 1 1		
	1872	3,700	8,158 7 1	2,279 9 7	3,884 9 10	(4) 7,737 4 3	4,426 2 10	1	To raise wages and reduce hours from 60 to 54 per week.
Northumberland Miners' Mutual Confidence Association.	1873	3,900	6,110 12 1	2,553 5 2		(5) 4,508 15 0	6,686 17 3		
	1870	3,300					7,800 0 0		
	1871	7,000					9,910 0 0		
	1872	14,000					14,770 0 0		
Iron-Founders' Society of England, Ireland, and Wales.	1873	17,000					19,000 0 0		
	1850	4,073	12,265 0 0	9,537 8 0	434 0 0	11,346 0 0	408 0 0	A number of unimportant ones.	
	1860	7,973	20,458 0 0	8,402 15 2	95 0 0	11,146 0 0	8,952 0 0	11	Various, the strikes being engaged in by different local branches and not in any case by the society at large.
	1870	8,964	31,534 0 0	21,109 2 0	45 0 0	23,972 0 0	7,842 0 0	11	
The Provincial Typographical Association.	1871	10,019	31,313 0 0	15,686 4 4	278 0 0	18,843 0 0	20,378 0 0	16	
	1872	10,634	34,748 0 0	12,536 8 3	33 0 0	15,330 0 0	32,818 0 0	6	
	1873	11,512	32,141 0 0	19,430 1 9	255 0 0	22,438 0 0	49,494 0 0	15	
	1850	6,043	81 12 9		85 0 6	102 8 5	98 1 5	4	To resist reductions and other encroachments.
Boiler-Makers and Iron-Ship-Builders' Association.	1860	1,473	331 17 11		6 0 0	72 11 1	950 11 4	1	To resist unfair working of the piece system.
	1870	2,430	1,730 0 0		50 11 5	17 4 7	1,573 0 0	5	To resist reduction of pay.
	1871	2,857	2,943 0 0		275 0 0	395 12 10	1,836 0 0	7	Various.
	1872	2,912	1,810 0 0		902 3 2	1,719 0 0	689 6 9	10	Various.
	1873	3,409	1,845 0 0		402 12 4	762 5 2	960 13 2	5	Various.
	1860	4,820	19,060 0 0	97 10 0	110 7 0	9,899 7 0	9,160 13 0	1	To resist a reduction of wages.
	1870	6,779	21,701 12 0	10,505 10 6	58 9 6	13,654 0 0	9,107 12 8	1	To obtain an increase of wages.
	1871	8,983	28,754 4 5	9,856 13 5	1,385 0 0	13,425 2 10	13,974 1 6	2	To obtain an increase of wages and a reduction of the hours of labor.
	1872	11,523	30,710 19 0	9,978 17 0	861 1 8	14,582 3 0	25,128 16 0	4	To obtain an increase of wages.
	1873	13,137	55,368 16 0	12,077 1 8	281 0 2	16,180 18 0	39,174 18 0	3	To obtain an increase of wages.

## NOTES ON THE FOREGOING SOCIETIES.

*\*London Society of Compositors.*—The secretary of this association, in his return, states that after many vicissitudes, dating from 1816, the society settled down into substantially its present form in 1848. Since the spring of 1871, the payments of members have been 7d. a week. The prices of work have generally been arranged between the society and the masters' association, or between committees of the two associations, appointed at general meetings of the respective bodies. In 1872, however, the masters' association was broken up in consequence of a rupture with the compositors' society.

The secretary further says that from 1810 to 1866 there was no advance in compositors' prices, but that an agitation which was commenced in the latter year resulted in a rise of three shillings per week, and a reduction of hours from 63 to 60 per week, and a corresponding increase in the prices of piecework and the pay for overtime. The strike of 1870 was confined to two or three offices, whose proprietors would not adhere to the scale of prices agreed upon in 1866. The society withdrew its members and "the offices remain closed to the present time." The strike of 1872 was entered upon to secure a further rise in wages and the prices for piecework, as well as a reduction of the hours of labor from 60 to 54 per week. It was only partially successful, but the secretary states that from 1866 to 1872 inclusive, the society succeeded in raising prices about 15 per cent., concurrently with a reduction of the hours of labor from 63 to 54 hours per week, and a considerable benefit in the matter of overtime.

The item marked (1) in the table includes the purchase of government stocks to the amount of £600. That marked (3) includes £1,106 5s. and that marked (5) £1,114 10s. expended for the same purpose. These three sums must therefore be regarded as rather transferred to capital account than as forming a part of the expenditures for the years in which they occur.

The items marked (2) and (4) are unusually large, the income of the society during the years 1870 and 1872 having been swelled by special levies to meet the expenses consequent upon the strikes above referred to.

† *Northumberland Miners' Mutual Confident Association.*—This society was organized in 1863, with about 2,000 members. It has had no general strike, but in 1865 it expended about £4,000 in support of a long strike of some of its members at Cramlington. The object of this strike, which was an increase of wages, was defeated by bringing men from Cornwall to take the places of the strikers. Only one other strike of importance (lasting only a few weeks) has occurred among the members of this society, but it has contributed thousands of pounds to assist workmen in other trades who were on strike in different parts of the country.

All differences, except those of a general kind, between the members of this society and their employers, are now referred for settlement to a standing committee, (consisting of six employers and six workmen,) which had been in existence for nearly two years at the date of the above returns, and had worked satisfactorily.

The payments of members are 6d. per fortnight, and they receive 10s. per week when on strike or laid up through accident. There is also a death legacy of £2 to members' families, but no allowance in sickness.

Mr. Thomas Burt, recently elected as member of Parliament for Morpeth, has been secretary of this society since 1865, and still retains the position, although the society provides a deputy to perform the ordinary duties of the office.

‡ *Iron-Founders' Society of England, Ireland, and Wales.*—The expenditures of this society for donations, allowances for sickness, accidents, superannuation, funerals and emigration, from 1850 to 1859 inclusive, amounted to £122,714 4s. 8d. Its expenditures on the same accounts, from 1860 to 1869 inclusive, were £248,609 4s. 7½d. Expenditures for strikes are not included in these amounts.

§ *The Provincial Typographical Association.*—The secretary of this association states that the strikes in which it has engaged have had so many different objects that it is impossible to tabulate them fully. The largest expenditures have been incurred in strikes undertaken for the purpose of raising wages, but a very considerable sum has been expended in resisting reductions and other encroachments, including the introduction of an undue number of apprentices.

Up to 1873 the society had no fund for benefits other than relief to men on strikes; but there is a separate organization under the same management, the object of which is to relieve the members while traveling. The fund which that society now has on hand amounts to about £2,000, which is not included in the above table.

|| *Boiler-Makers and Iron-Ship Builders.*—This society has already been noticed.

It is to be regretted that returns could not be obtained from the Miners' National Union, numbering 140,000 members; the Amalgamated Association of Miners, numbering 45,000; the National Agricultural Laborers' Union, numbering 60,000, and the Federal Union of Agricul-

tural Laborers, numbering 30,000 ; but these associations are as yet comparatively young, and probably have not settled into a uniform and systematic method of keeping and consolidating their accounts. There is probably a reason, too, why they are not disposed to be communicative as to their financial condition, for their contests with employers have been severe and protracted, in consequence of which their funds are likely to be low. The secretaries, or other prominent representatives of these associations, as well as the secretaries of the Amalgamated Association of Cotton-Spinners, (numbering 14,200,) the East Lancashire Power-Loom Weavers, (numbering 16,000,) and the Amalgamated Iron and Steel Workers, (numbering 20,000,) have been asked for information in regard to their respective societies, but no returns as yet have been received from them.

The societies just named, and those heretofore noticed, comprise all the associations, having 10,000 members or upward, which were represented at the National Trades-Union Congress held at Liverpool in January, 1875.\* It has already been remarked that the number of members represented at Liverpool was not less than 800,000, after making full allowance for duplicate representation in the case of some of the city trades-councils ; but there are many small organizations, and some of very considerable magnitude, which were not represented in the congress at all. One of these, the Scotch Carpenters and Joiners, has been noticed in these pages ; another association of the same trade, which was also unrepresented, has its headquarters in Birmingham, and is said to comprise upward of 20,000 members. Mr. George Potter, of London,† a gentleman who is exceedingly well informed on all working-class movements in Great Britain, in a paper read before the Social Science Congress some months ago, estimated the total membership of the trades-unions of the United Kingdom as being certainly not less than 1,200,000, a number which, seeing that it is made up of men, a large proportion of whom have wives and children, represents a very considerable section of the population of the kingdom. "The coal and iron workers," says Mr. Potter, "cannot count fewer in their union than 300,000 men ; but as these industries are of comparatively recent development, their unions are not yet so complete in their arrangements as in a short time they are certain to become. Still, even in those trades, wonderful progress has been made in adding provident to trade benefits. Sickness and death and accident are provided for in most of them ; and in some superannuation is added, as well as provision for widows and orphans. Time alone is needed to make all this a vast network of provident arrangement, by which most of the worst evils of the working-man's situation will be met and overcome. It is sometimes insisted on that the benefits held out by trades-societies to their members can only be continued for a time. Actuaries have proved this. In this matter, however, the calculations of the actuaries have not turned out to be correct. The great trades-associations have always met their obligations to their members, and with the power of levy which they possess they are not likely to fail in this in the future. They know their own business and they do it very well in their own way, with less internal disagreement and less chance of shipwreck through fraud, bad faith, or bad business tact than any other set of societies in the kingdom, whatever their object or by whomsoever worked."

\* A few of the smaller societies have also been included in the above notices, as well as the Scotch Association of Carpenters and Joiners, who were not represented in the congress.

† Mr. Potter is editor of the *Beehive*, the Trades-Union organ.



This is strong commendation; but it must be frankly confessed that the study of their plan of organization, their management, their modes of making the will of their members felt in all matters of vital concern, their precautions against fraud on the part of their officers, their provisions for the discouragement of rash or hasty action in disputes with employers, their penalties for boastful or abusive language, and their carefully-guarded arrangements for mutual support and assistance, tends to impress one with a much more favorable opinion than that which is commonly received of the sobriety of conduct, capacity for business and for self-government, solid intelligence and moral status of the men who compose them.

### TRADES-UNIONS.

BY MR. J. S. STANLEY JAMES.

The following, forming the concluding part of an article written for this report by Mr. Stanley James, "On the condition of the working-classes of England," is inserted in this place because of its connection with the preceding chapter :

Trades-unionism in England is an established fact, and a power which, although many politicians try to shirk or avoid, it is best to openly admit. The unprejudiced observer must allow that in England trades-unions have raised workmen morally and intellectually, and have taught them a higher sense of their responsibilities. They have increased the prices and shortened the hours of labor; have educated workmen to a knowledge of their common interest and common duty, and in every sense have raised the character of English workmen. Judge Rupert Kettle, in his work on "Strikes," says, respecting the trades-unions, "They have promoted free thought and free action among the hand-working classes, and, moreover, have taught them to respect the law and rely upon moral means for obtaining what they believe to be right. We have now no bloodshed, no rioting, scarcely an angry word in the bitterest and most protracted strikes. Although we owe this salutary change partly to the improved education and the higher moral tone among the laboring class, we owe it much more to the direct and immediate influence of trades-unions." The British Quarterly Review says, "It appears pretty clear that unionism by its influence has, by slow degrees, altered for the better the condition and circumstances of British workmen."

Prior to 1824 all concerted proceedings on the part of workmen for the purpose of raising the rate of wages were punishable both at common law, and under the "combination acts," which were in force both in England and Scotland. In Scotland particularly were these restrictions imposed on workmen. In 1755 the journeymen wool-combers in Aberdeen formed themselves into a society. "Though their seeming view," said Lord Kames, "was to provide for their poor, yet under that pretext several resolutions were made cramping trade and tending to make them independent of their employers." The judgment of the court before which the men were brought was, "that such combinations of artificers, whether they collect money for a common box, inflict penalties, or make by-laws, are of a dangerous tendency, subversive of peace and order, and against law;" and so under pains and penalties the men were prohibited from continuing such society. In 1762 the court at Edinburgh found "that the defenders and other journeymen tailors of Edinburgh are not entitled to an hour of recess for breakfast, that the wages of a journeyman tailor in the said city ought not to exceed one shilling per day, and that if any journeyman tailor not retained or employed shall refuse to work when requested by a master on the aforesaid terms, unless for some sufficient cause to be allowed by the magistrates, the offender shall, upon conviction, be punished in terms of law; for arts and manufactures which are necessary to the well-being of society, must be subject to rules, otherwise it may be in the power of a few individuals to do much mischief. If the bakers should refuse to make bread, or the brewers to make ale, or the colliers to provide coals, without being subjected to any control, they would be masters of the lives of the inhabitants. To remedy such an evil there must be a power placed somewhere; and accordingly this power has long been exercised by magistrates of burghs and justices of the peace, under review of the sovereign court." With regard to the propriety of the regulations it was observed that the power to fix wages was admitted, and "it is of no purpose to fix wages without also fixing the number of working hours; and it is of no purpose to fix either if the defenders have the privilege to work or not at their pleasure."

But year by year, during this century, the old-fashioned connection of master and servant, with the quasi-feudal servility on the one hand and patronage on the other,

has passed away, although many prejudices have survived the times when the dominant and the servient positions was rigidly maintained. Some encouragement is given to the continuance of artificial class-distinctions in England by the maintenance on the statute-book of laws passed from time to time to modify and modernize, but not to abolish, the pains and penalties by which, in barbarous ages, labor was enforced. In opposition to the law, trades-unions grew in power and strength every day. Various acts of Parliament were from time to time passed in relation to them, but it was not until 1871 that the "trades-union act" was passed, by which they were legalized. Many former disabilities are, however, continued, and secret societies are illegal: "All societies are deemed unlawful combinations the members of which shall take oaths, or engagements in the nature of oaths, or subscribe any test or declaration not to disclose its secrets." According to this law, every trades-society in the United States would be unlawful and its members liable to prosecution.

The trades-unions, acting under the old ban of illegality, have, as I have said, raised the wages and shortened the hours of labor in England. This, however, has been done too often at the loss of friendly feeling, comfort, and confidence between employer and employed. "Strikes" are a barbarous means of adjusting disputes, and much suffering and misery have thereby ensued to the men. The system of arbitration in disputes between employer and employed has, however, been inaugurated with great success. Arbitration was first proposed and carried out by Mr. Rupert Kettle, an eminent barrister, now judge of the Worcester County court. For ten years Judge Kettle has devoted his time to this subject, and has mediated with great success in many large disputes between masters and men in every part of England. Judge Kettle's services (for which he will accept no remuneration) are well known and appreciated by the workmen, and whenever his decision has been against their claims, they have accepted it loyally and thoroughly. Arbitration is now a principal platform of many of the leading trades-unions. At the last annual conference of the National Association of Miners the following resolution was carried: "That the miners of the various districts in the association do all in their power to make arrangements with the employers to form boards of conciliation and arbitration, by which any disputes that may arise between both parties might be amicably settled, without having recourse to the barbarous course of lock-outs." The system of trade-arbitrations is, in fact, now nearly a national one, and Judge Kettle has also the satisfaction of seeing it accepted in a great number of industries in France, where his system was highly commended by the Comte de Paris in his book on the labor question; and in Germany, since its advocacy by the great social economist, Schultze Delitch, and the well-known republican, Dr. Bertram.

The leaders of the trades-unions in England have now, indeed, great power. Of Halliday, Burt, Macdonald, and especially of Joseph Arch, it may be said, in the words of the Gaul Liscus to Cæsar, "There are some whose influence with the people is very great, who, although private men, have more power than the magistrates themselves."

## STRIKES IN ENGLAND.

Closely associated with the history of the British trades-unions, is that of those protracted and bitter struggles between workmen and employers, known as "strikes," by which the annals of labor in the present century have been especially marked. One of the earliest was the widespread and long-continued strike of the Lancashire cotton-spinners, which took place in 1810. The following particulars of that and several other strikes of British workmen are taken in a condensed form from the work of Mr. Ward on "Workmen and Wages:—"

In 1810, the spinners in the mills of Manchester, Stockport, Macclesfield, Staleybridge, Ashton, Hyde, Oldham, Bolton, and as far north as Preston, simultaneously left their work, and, had the strike continued a little longer, the whole of Scotland would have joined it. As it was, 30,000 persons were thrown out of employment; many of these paraded the streets of the above-mentioned towns during the day, shouting and hooting at the persons who, as they supposed, were inimical to their cause. Disturbances of the peace were frequent; the authorities were inefficient for the protection of property; several masters were unable to leave their mills for fear of some violent outrage; and such workmen as were obtained to supply the place of the seceders were held prisoners in the establishments where they worked. The direction of this strike was carried on by a congress at Manchester, formed of delegates from all the principal mills. During this turn-out, the men who had struck were supported by the contributions of those who were at work, and the sums so collected amounted for a considerable period to nearly £1,500 weekly, of which Manchester, alone, paid upward of £600. This fund was for some time sufficiently large to enable the congress to make a weekly payment of 12s. to the spinners who had struck; but the contributions, and consequently the allowances that flowed from them, gradually fell off, till they at length ceased altogether, and those who depended upon them were literally consigned to destitution. When the contributions of those in work, failed, such of the men as had laid by money in the days of prosperity resorted to it for support, and thus were consumed in a hopeless warfare the hard-earned savings of years of industry. The required advance of wages was not obtained in a single instance, and, after four months of protracted misery, the men returned to their work, some even accepting employment at the rate of 2d. per pound, instead of 4d., which they had been previously earning, thus submitting to a reduction of 50 per cent. on their wages, to raise which everything but existence had been staked.

In the year 1824 the spinners in Hyde turned out, much against their will, and solely at the dictation of the union. The reason given for the turn-out was, that the Hyde spinners were working for wages below the regular rate, inasmuch as they were paid 3s. 7d. per 1,000 hanks of No. 40 cotton, while in other places 1s. more was given for the same quantity of work. But the machinery on which the Hyde spinners worked was so superior, that they could, at these comparatively low prices, earn more weekly than the neighboring spinners, who, however, insisted that their Hyde brethren were paid lower wages than themselves, and, therefore, ought to turn out; whereas, it is obvious that they were paid higher wages, in fact, than were given elsewhere. The result of this strike was that the men, after enduring the greatest hardships, and having cost the combination between £3,000 and £4,000, returned to their work at the same wages which they had struck to raise.

In 1830 a strike likewise occurred of more than ordinary magnitude, and threatened at one time extreme violence on the part of the strikers. At Ashton and Staleybridge, 3,000 spinners left their work, by which 52 mills and 80,000 persons were thrown out of work for ten weeks. On this occasion it was necessary to send 1,000 additional troops to that part of the country to preserve order; and had it not been for the judicious measures of the commandant of the district, (Colonel Shaw,) great destruction of life and property, in all probability, would have taken place. The men, however, returned to their work at the same wages which they had been previously receiving.

## THE PRESTON STRIKE.

The Preston strike was marked by similar features to those just noticed in the cotton-manufacture of Manchester and the surrounding locality, and ended just as disastrously to the operatives engaged in it, while at the same time it inflicted a great loss,

\* The opinions of this author on the merits of the several contests are usually omitted, but where reproduced they are not always in accordance with the views of the author of this report.

upon the community in the immediate and surrounding district. The operatives of Preston struck work on November 5, 1836. The strike lasted thirteen weeks, and the number of persons thrown idle by it were classified as follows: 660 spinners; 1,320 piecers, children employed by the spinners; 6,100 card-room hands, reelers, and power-loom weavers; 420 overlookers, packers, engineers, &c., making 8,500 persons in all. The spinners, who numbered 660, were the only parties who voluntarily left their work, and who threw the others out of employment, so that the 7,840 remaining were completely dependent upon them. The sacrifice, on the part of the piecers, reelers, overlookers, packers, and engineers was severe in the extreme, and the more severe as it was imposed upon them much against their will. The following estimate was made of the pecuniary loss to all classes of the operatives in consequence of the strike:

The wages of the 660 spinners for thirteen weeks, at 22s. 6d. ....	£9, 652
Wages of 1,320 piecers for thirteen weeks, at 5s. 6d. ....	4, 719
Wages of 6,520 card-room hands, weavers, overlookers, engineers, &c., for thirteen weeks, averaging 9s. ....	38, 142
Estimated loss sustained by hand-loom weavers, in consequence of the turn-out .....	9, 500
Estimated loss sustained by clerks, casters, mechanics, dressers, sizers, &c., in consequence of the turn-out .....	8, 000
<b>Total .....</b>	<b>70, 013</b>

From which must be deducted :

Estimated amount of wages earned during the partial resumption of work, between January 9 and February 5 .....	£5, 013
Estimated value of relief given by masters .....	1, 000
Other private charity and parish relief .....	2, 500
Allowance to the spinners and piecers from the funds of the union. ....	4, 290
	<b>12, 803</b>

Leaving a net pecuniary loss, to the whole body of the Preston operatives, of. ....	57, 210
But, to the town at large, it may be said that the loss amounted to the whole sum of £70, 013, as the deductions were mostly of a charitable nature. The loss to the masters, being three months' interest of £800, 000, some of which, being sunk in capital, was not only unproductive, but was taking harm from being rendered useless, was estimated at .....	45, 000
And the loss sustained by the shop-keepers, from loss of business, bad debts, &c. ....	4, 986

Making a total loss to the town and trade of Preston, in this unavailing struggle, of .....	107, 196
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#### THE NOTTINGHAM STRIKES.

In February, 1811, the hosiery trade of Nottingham and the neighborhood was in an extremely depressed state, and, as a consequence, large numbers of workmen were reduced to pauperism and the most dire distress. On the 11th of March, great numbers of the country framework-knitters assembled in the market-place and expressed a determination to take vengeance on their employers who had reduced the prices paid for making stockings. Several meetings were held and the framework-knitters resolved to organize themselves, with those of Nottingham and other places, for the purpose of advancing wages and destroying such improved machinery as they supposed injurious to manual labor. Secret midnight meetings were held in various parts of the county, attended by delegates from other districts, who attributed their distress mainly to the introduction of what were then termed *wide-machines*, in some of which several stockings were woven at one time, while in others shapeless pieces were made for low-priced stockings, called *cut-ups*. Bands of the "Luddites" prowled about at night to destroy the obnoxious machines, but they were so disguised, and so organized, that very few of them were brought to justice, as compared to the number engaged in the undertaking. Upwards of 200 stocking-frames were broken in the short space of three weeks; and one manufacturer had 63 destroyed in a single night, besides other property connected with this trade. The system under which these deluded men acted was called *Luddism*, which was derived from one Ludlam, a youth of Leicestershire, who, when ordered to "square his needles" by his father, a framework-knitter, took his hammer and beat them into a heap. The destructive operations of the Luddites were repeated at intervals from 1811 to 1817, in which period upwards of one thousand stocking-frames and a number of lace-machines were destroyed in the county of Nottingham, and the evil spread itself into the counties of Leicester, Derby, Lancaster, and York. In the two latter counties, the object of the Luddites was to destroy the machines which

had been introduced to diminish hand-labor, but the frame-breakers in the hosiery and lace-trades had not this grievance to complain of. The Nottingham and Leicester men, however, complained of a diminution in prices, occasioned by the repeal of the act of the 5th of Elizabeth. Until this statute was repealed the framework-knitters were paid by printed statements, drawn up by both parties, the deviation from which, in 1811, and the introduction of wide or cut-up frames, caused the riots, which continued, with various intermissions, till 1817. The plan adopted by the rioters was to assemble in parties of from six to sixty, as circumstances required, under a supposed leader, styled "General Ludd," or "Ned Ludd," as the humor might seize them; and whoever assumed either of these titles had the supreme command of the party, some of whom, armed with swords, pistols, firelocks, and other destructive implements, were placed as guards, while others, having hammers, axes, &c., entered the houses and destroyed the frames. In consequence of the continuance of these outrages, a large military force was dispatched to the locality, and two of the metropolitan-police magistrates, assisted by other officers, presided at Nottingham with the view of discovering the ringleaders; but, although a secret committee was formed and supplied with a large sum of money for the purpose of obtaining private information, no discoveries of any importance were effected, and the offenders continued their devastations with redoubled violence. A royal proclamation, however, was issued, offering £50 reward for the apprehension of any of the offenders; but this only tended to inflame the frenzy of the men, who then began to plunder the farm-houses both of money and provisions, declaring that "they would not starve while there was plenty in the land."

The number of unemployed families who were relieved out of the poor-rates in the three parishes of Nottingham, on the 30th of January, 1812, amounted to 4,248, consisting of no fewer than 15,350 individuals, or nearly one-half of the then population.

In 1813, eighteen Luddites, some of whom were guilty of murder and arson, were hung at York; and in the same year an act was passed which made it a crime punishable with death to break a stocking-frame. Seven Luddites were also transported from Nottingham, and several of the leaders in Leicestershire, in 1816 and 1817, were executed in front of the county gaol. Since that period, the framework-knitters, too miserably paid, have periodically had recourse to more temperate and more sensible measures in their endeavors to better their condition; and in 1819 those in Leicester and the neighborhood formed themselves into a union, in which those who were employed contributed to the support of the unemployed, in order to prevent the decline in wages, which had fallen nearly one-half since 1815. In this undertaking they were assisted by the contributions of the benevolent to the amount of more than £3,000, as well as by loans of money and the assistance of the principal manufacturers; and about the close of the year 1823 things began to take a turn, trade being so much improved that there was scarcely a man out of employ. The frame-knitters' union was dissolved, having distributed, during a period of four years, no less than £16,182 among the unemployed. The wages, however, of the frame-knitters continued to decline, until they reached little more than an average of 5s. per week after deducting frame-rents and other shop-charges, though certain expert hands could earn twice that sum.

In 1843, a petition, signed by upward of 25,000 framework-knitters of Leicestershire, Nottingham, and Derbyshire, was presented to the House of Commons for an inquiry into their distressed condition arising from the low rate of wages, the enormous exactions for frame-rent, the prevalence of the *truck-system*, or payments of wages otherwise than in money, and the manufacture of spurious articles called *cut-ups*. In February, 1844, Her Majesty issued a commission to inquire into their grievances. A large body of information was collected and published in a copious report. The heaviest grievance complained of in this inquiry was the *frame-rents*.

The system of frame-rents and "charges" is one of the most oppressive that can possibly be conceived. It grinds the poor stocking-weaver almost down to the dust; at least there is little left of his weekly earnings when the rents or "charges" are deducted from them. The evidence, both of masters and men, is perfectly conclusive and coincident on one point, namely, that the amount of this deduction is regulated by no fixed rule or principle; that it is not dependent upon the value of the frame, upon the amount of money earned in it, or on the extent of the work made; that it has differed in amounts at different times and at different places; that the youthful learner or apprentice pays the same rent from his scanty earnings as the most expert and skillful workman in the trade from his, of fourfold the amount, and that the practice of this "charge" has existed for upward of a century. The grievance began with the bagman engrossing the frames and letting them out to hire. It was the beginning of a powerful and crushing monopoly on the part of the masters to exercise the right to charge, on the one hand, a fixed weekly rental for the use of a tool to work with, and, on the other, to reserve to themselves the right to prevent the renter of the tool from the free and uncontrolled use of it during the time it was rented. Further, when the bagman could not find full employment, he prevented the renter of the tool from working it for other parties. He also exercised the right of

only allowing the workmen to begin at a certain hour, and leave off work at another certain hour. To increase, moreover, his power of control, he kept on further engrossing the frames, by which he acquired the means to forestall the markets, and retain the power of making what deductions he pleased. A petition was referred to a committee of the House of Commons as long ago as 1777, in regard to these encroachments on the rights of the workmen, and they agreed that the petitioners ought to have redress, but upon bringing in a bill it was defeated by the activity and energy of the hosiers, who had organized a powerful parliamentary opposition to it.

Notwithstanding the miserable condition of the frame-work knitters, and the evils they have to contend against, strikes have done them infinitely more harm than good, whenever they have been resorted to for the removal of their grievances. General strikes, however, are very rare in the hosiery trade; the number of workmen, and their being distributed so widely about, preventing anything like the unanimity which is necessary to secure perfect organization with such a view, to say nothing of the scarcity of funds among the men.

It must, we think, be obvious that nothing can be more intolerable than the proposed objects for which unions are generally formed—the maintenance of an established list of prices for labor—because, in the first place, they are powerless in controlling the influence on wages which the supply of labor ever bears to the demand for it; and, in the next, the unions have not the means of discerning the amount that the manufacturer can afford to pay for wages, as one only of the elements in the cost of production, which would leave him a profit sufficient to induce him to continue the investment of his capital in the manufacture.

In many cases, after a long struggle, and extensive injury both to masters and men, the latter have been forced to resume work on the terms they had previously turned out against, and occasionally even on less advantageous ones.

#### THE STAFFORDSHIRE COLLIERY STRIKE.

The narrative of the Staffordshire colliery strike is a sad tale, and soon told. It is the history of a hopeless struggle, which was generated in ignorance of the plainest economic laws, and ended as all such struggles must end, in painful discomfiture and defeat on the part of the men engaged in it.

On the 4th of July, 1864, just six years after the preceding general strike in 1858, the fortnight's notice of the masters having expired, the thick-coal men all turned out. For a time they were joined by the working engineers, and by the men employed at the blast-furnaces in the making of pig-iron; but these, after a short struggle, gave up the contest, and resumed work on the terms proposed by the masters, which were a reduction of ten per cent. The thin-coal workers in the Bilston and Wolverhampton districts did not at first join the movement, for they accepted the reduction, and were at work, when, by repeated entreaties on the part of the thick-coal men, they, too, were induced to turn out, some of them without giving notice. This naturally led to magisterial proceedings, and the thin-coal men ultimately all went in and gave notice. On the expiration of that notice, they all turned out, but they did not remain out more than a week, and three-fourths of them at once accepted the masters' terms. It will, therefore, be seen that the thick-coal men were the first to object to the terms which the masters offered; and the objection became most powerfully displayed among the men who were employed in the domestic trade at West Bromwich, and in the general trade about Dudley and Tipton. In the latter districts, the chief employer is the Earl of Dudley. Other masters took the same course, and, seeing that the men intended stoutly to contest the point, they began at once to make arrangements for getting supplies of coal for carrying on the pig-iron and the finished-iron works, respectively, from other districts. Lancashire, Derbyshire, North Staffordshire, and North and South Wales, were at once applied to. The application met with a ready response, and so great was the demand, that every description of wagon had to be used to bring the coal from those districts. The railway companies were ready to run as many special trains as the ordinary traffic would allow, so that the enormous quantity of 10,000 tons of coal was daily brought into Staffordshire. The strike-committee attempted to cut off the supplies, by sending delegates into the districts we have named, with a view to induce the colliers to refuse to get coal to be used in an attempt to defeat the men in Staffordshire. But the attempt was unsuccessful. The colliers at a distance did not believe that they had a right to dictate to their masters as to what market they should send their coal, but were ready to contribute to the support of their brethren on strike. Simultaneously with this refusal on the part of the colliers at a distance, there were evidences at home of a want of unanimity. Men who felt that their masters would ultimately win the day, returned to work in small numbers throughout the whole of the district. There were 30,000 out when the strike was at its height in September, but that number had fallen to about 18,000 in the middle of the month. To prevent these from going to work, morning meetings, at between 4 and 5 o'clock, were determined upon, and thence detachments moved off in

different directions, headed by drums and whistles. Wherever men were met on the road going to work, they were sure to be prevented from going down that day. Usually, it required much persuasion to bring about such a result, but when that failed, other means of a less agreeable character were resorted to; and when men succeeded in getting to work, unobserved, they were met as they returned, and assailed with the usual epithets of "black-leg," and the like, the presence of the police as their guard notwithstanding. A few of the more desperate resorted, for the first time in the history of a colliers' strike in Staffordshire, to the throwing of rough hand-grenades into the houses of the men who had gone to work; and as the threats became more and more vehement, the police had to interfere at the morning meetings, which were ultimately prohibited. The result was that the number of men—encouraged by two troops of lancers, who were headed by the lord-lieutenant of the county, and by the stipendiary magistrate for South Staffordshire—was quickly enlarged, and work in the pits was very soon resumed.

#### THE POTTERY STRIKES.

The strikes in the pottery-trade in the years 1834 and 1836, also "point a moral and adorn a tale" of more than ordinary interest in relation to workmen.

The Staffordshire potteries, as the locality is ordinarily termed, comprise parts of three parishes, and extend, from north to south, a distance of eight miles. Four of the principal towns are included within this limit, of which Burslem is the oldest in the district; and the first in rank next to this town are Hanley and Shelton, which may be said to form one town, as they are immediately contiguous to each other, and are the most populous. At the census of 1831, the population of the several towns within the parish of Stoke-upon-Trent was 35,602; in the parish of Burslem, 12,714; and in the township of Tunstall, in Wolstanton Parish, 3,673; making a total of 51,989. Since that period the population has more than doubled.\*

All the processes of the manufacture of pottery are performed by manual labor, and no machinery, in the common acceptation of the term, is used. Every branch in the trade is healthy, with the exception of that employed in covering the surface of the ware with glaze, or (as it is technically called) "dipping." The regular working-time on which all calculations of wages are based is fifty-four hours per week, or an average of nine hours per day; but when goods are in great demand, the workmen are often required to make greater exertions, and the time is extended to sixty-six hours per week, or an average of eleven hours per day.

The operative potters, as a body, earn fully as good if not better wages than the workmen of any other staple trade in the kingdom, and full employment is afforded at suitable occupations to women and children. In a statement published by the chamber of commerce previous to the general strike, and circulated throughout the kingdom, there are the following remarks on the subject of the earnings of the workmen, which have been authenticated by the proper authorities:

Two or three years ago, when wages were considered low, the weekly average was from 17s. to 21s. for men, according to their skillfulness; 7s. to 9s. for women, and 3s. 6d. to 4s. 6d. for children fourteen years old. The average earnings in regular branches are now from 21s. to 28s. for men, 9s. to 12s. for women, and 4s. to 6s. for children, the labor being calculated at nine hours per day.

The operative potters, in their general character, are industrious and orderly, and possess the comforts of life to a considerable extent. For ten years previous to the strike, wages had been undergoing a progressive advance, caused in part by the operation of the potters' union, but more by an uninterrupted demand for goods, which left few skilful hands out of regular employment. At no period since the establishment of the trade was the remuneration for labor so ample as at the time of the general strike in 1836.

The first union of the workmen known in the potteries, for the purpose of regulating prices, was established in 1824. In 1825 the hands at a number of manufactories struck for an advance of wages, but during the continuance of the strike the well-remembered commercial panic of that year occurred which frustrated their endeavors, and work was resumed at the same or lower prices than those previously paid. One of the expedients of the union at that time was to commence manufacturing, and, by thus making the surplus hands a source of profit, it was thought a waste of funds would be prevented, and at the same time the competition for employment would be checked.

The union was dissolved, but its leaders met with considerable difficulty in obtaining employment, and some left the district, while others took to other occupations. One of the leaders of the union, however—a man of some mark in his way, who had subsequently changed his views on the subject—made the following observations in a letter published just previous to the strike of 1836:

"These simple facts will illustrate the nature of unions, their utter inefficiency, the factious spirit they cherish, the false principles on which they are founded, the mate-

rials of which they are ordinarily composed, and the ruinous effects to which they lead. We spent nearly £3,000 to prop up a fallacious delusion; labor fell lower than ever in 1826, in consequence of the depression of trade. Many of the men were ruined and went in at any price. Many, before in comfort, dragged on a miserable existence on parish-pay, having offended their employers beyond forgiveness."

In 1834, another attempt was made at manufacturing by the workmen. A manufactory was taken at Burslem, on a lease for a term of years, and seven of the men who had accumulated property entered into engagements for the payment of the rent. A capital, amounting to £800, was advanced from the general fund, and two of the most active members of the union had the management. This concern struggled through an existence of eighteen months; the capital was entirely lost, all parties became dissatisfied with each other, and those connected with the lease were happy at being discharged from their responsibilities on almost any terms.

In November, 1834, the end of the potters' year, the workmen at ten manufactories in Burslem and Tunstall struck for an advance of wages. The advance demanded was an average of thirty-five per cent. upon the current rate.

On the 1st of March, after a stoppage of fifteen weeks, the manufactories were opened, and masters yielded to the demands of the men. The number of hands employed by the ten manufacturers was at least 3,300, and the weekly amount of wages exceeded £1,900. The total loss in wages alone sustained by the workmen was estimated at £27,000. To this amount must be added the loss sustained by the masters on their dormant capital, the loss to the working colliers, and to the other branches immediately dependent upon the potters.

The workmen were naturally elated at the victory which they had achieved, and had the weakness to delude themselves with the idea that nothing could stand against their combined will. The leaders of the union assumed to regulate all matters that related to the workmen and their employers.

Further concessions were demanded from time to time, and finally the masters found it impossible to comply with these demands, and submit to the course of conduct pursued, without appearing to abandon the general interests of the trade. Therefore, in March, 1836, the great body of the manufacturers formed themselves into a society under the designation of a chamber of commerce, the professed object of which was to protect the general interests of the trade, but virtually to counteract the effect of the proceedings of the workmen.

It had already appeared, that, notwithstanding an agreement to the contrary, the workmen were enabled to effect their object, by causing the hands at any manufactory to strike until their demands were conceded. To counteract this, no other plan presented itself to the chamber than that of inserting a clause in the agreement, whereby the masters might, as a body, be enabled to suspend their manufactories whenever the workmen of any master struck, in violation of any existing contract. Such a clause was drawn up, under the sanction of high legal authority, and the masters determined on its forming part of their agreement. The contest on the part of the masters was limited to these objects—to maintain the established wages of the trade, to continue the mode of hiring from year to year, and to make an alteration in the form by adding the protective clause named. Workmen thought, however, that if the old mode of enforcing their demands was then adopted, the same result would follow; and the hands at fourteen manufactories struck work, although they were under agreement to the end of the year. The chamber of commerce took the case of these fourteen manufacturers into consideration, and urged them to oppose the proceedings of their workmen. Pecuniary recompense was promised, on a scale proportionate to the relative extent of their business, until Martinmas, the time when the suspension of the whole body would offer a more formidable resistance. The workmen, week after week, deceived themselves with the hope that the masters would not continue united; that certain individuals, among those whose men had struck, would soon yield rather than sacrifice their connections; and that the secession of one would be the signal for the surrender of all the others. No change was made in this state of things until Martinmas, when sixty-four manufacturers, members of the chamber, suspended business, as they had previously resolved.

The number of hands employed at the fourteen manufactories which struck in September was 3,500, and the weekly payment of wages was at an average £2,560. The total loss to the district on this strike may be estimated at £31,168. The number of hands employed at the 64 manufactories engaged in the general strike was 15,600, and the amount of wages was at an average £11,238 per week. The loss to the whole district on this strike may be estimated at £157,442. There are in the potteries 130 manufactories, which employ 20,000 hands, and pay in weekly wages £14,400. It would thus appear that about half the total number of manufacturers were engaged in the strike; but as they were the greatest in extent of business, they employed seven-ninths of the total number of hands and paid four-fifths of the whole amount of wages.

The union was completely defeated, not having succeeded in any one of its points. On the 20th of January, 1837, twenty-one weeks from the commencement of the strike



with the fourteen manufactories, and ten weeks from the general suspension, the men resumed work. The annual hiring was retained, and the suspension clause formed part of the agreement. The extent of suffering was great, and far beyond anything that had previously been seen in the district. The payments from the union funds were very irregular and did not exceed an average of 5s. or 6s. per week for men with families; while women and children, who form a large proportion of the working population, did not receive any allowance. The privations of the workmen were great, but they bore them with a constancy worthy of a better cause. A few days before the termination of the strike a considerable number of individuals, amounting to upwards of 200, simultaneously pledged their watches and disposable articles of dress in aid of the general funds. Many of the more provident workmen, who had money in the savings-banks of the district, drew it out, either for the supply of their own necessities or to assist the union.

According to a financial statement the total loss inflicted by the strike from first to last was as follows:

Total loss to the operative potters.....	£152, 816
Total loss to colliers, crate-makers, and engravers.....	19, 332
Total loss to the manufacturers.....	16, 462
<b>Total.....</b>	<b>188, 610</b>

No outrage was committed during the strike, either on the person or property of any manufacturer. There were no tumultuous gatherings, nor indications of violence, which was highly creditable to the men. During the strike, however, many of the manufacturers were "picketed," and any individual seen to enter the manufactories incurred a fine, which was stopped from the succeeding week's allowance. Such a regulation might be necessary in support of a bad cause, but could scarcely be required in one founded upon justice; and it was surprising that men who, from their conduct, appeared to understand so well their rights, and who were so sensitive under what was deemed oppression, should submit thus to be controlled in the operation of their own free will and perfect liberty of action.

#### YORKSHIRE STRIKES.

The Yorkshire strikes, as they are commonly denominated, furnish a curious and instructive chapter in the history of the manufacturing classes. In 1831, the stubbers, spinners, and weavers in the cloth trade formed a union. One of the leading firms at Leeds was the first to feel the effect of the combination. They had just completed a building on a gigantic scale intended for the weaving of fine woolen cloth. All the expensive machinery adapted for that purpose had been purchased and erected, and every necessary arrangement for commencing the business had been made, when the weavers, to the number of 210, turned out, although the wages they had been receiving were equal to those received by others of their class, and averaged 17s. a week. For some weeks the required advance in wages was resisted, until at length those men who continued at their work were subjected to such treatment, on entering and leaving the factory, that the proprietors were induced to accede to the terms proposed. The men, however, were disappointed in obtaining all the advantages they looked for, as only a sufficient number of weavers were taken back to work the looms in the old part of the establishment, leaving their newly-erected building unused. The owners soon after disposed of all the machinery it contained, and this commodious and spacious structure, 136 yards in length, stood untenanted for some time, a melancholy monument to the effect of misguided union policy. The union men, however, thought otherwise, and deemed the emptiness of the unrivaled structure a triumph of their cause. The men engaged in the various processes of finishing, as well as milling or fulling woolen cloth, joined the union; and the workmen, for a period, wielded almost irresistible power over the property of their masters.

The next step of the union was to draw up a list of wages to be paid for spinning, weaving, &c., which was published in the newspapers. This document assumed the air of a proclamation, and was headed "a scale of prices to be observed by mill-owners, manufacturers, &c.," and had appended to it regulations as to the admission of boys, and the proportion in which they were to be employed, relatively to the number of adults. The workmen were then ordered by the committee of the union to demand of their respective employers compliance with this scale of wages, care being taken that the manufacturers should be successively applied to for this purpose, in order that there might be less chance of any general resistance on their part, and that the combination might not have too much on their hands at any one time. The larger number of the masters acceded to these demands, and their names were duly published in the Leeds newspapers.

The workmen, however, with a logic peculiarly their own, contended that this scale was not a rise of wages, but only what they termed an "equalization" of them—it being a principal object of their union to compel the masters to pay every operative

good, bad, or indifferent, an equal sum for his labor. But the workmen failed to gain, the expected advantage from this advance of wages, as the masters were prevented by the state of the market from making beyond a certain quantity of cloth, and that only of the superior qualities, while paying the advanced rate of wages; they consequently either sent their yarn to be woven in the neighboring villages, where wages were always lower than at Leeds, or stopped part of their works entirely; and thus a great many of the men were thrown permanently out of employ, who, of course, had to be supported by those who got work.

Trade, both home and foreign, was materially injured by these contests. Some of the manufacturers managed to escape the losses they would otherwise have sustained by making alterations in spinning the yarns and setting the webs. The union made new regulations to meet this contrivance, which were counteracted by fresh evasions on the part of the manufacturers, and thus a war of cunning and contrivance was carried on between masters and men, in which the latter were sometimes beaten, and in some instances they voluntarily requested their employers to return to the old system and prices. The evil of these proceedings was that the goodness of the cloth was impaired by the alteration of the gear and spinning, and the public had to pay in the deteriorated quality of the cloth they purchased, while our foreign trade was doubtless injured by these futile and absurd attempts of the workmen to raise their wages beyond the natural level. The union, however, was nothing daunted by these drawbacks. It commenced a system of interference in the management of the manufacturers' business by requiring them, in case of a contraction of their scale of production, not to discharge any of their workmen, but to supply all, in equal proportions, with the work that remained.

The tyranny of the union at length knew no bounds, and the committee, like all ignorant men in the possession of authority, for which they are totally unfit from sheer incapacity, ran riot in the exercise of power, and frequently displayed the mere wantonness of passion and caprice.

The most remarkable strike that arose from this union took place in 1833, by which over a thousand hands were thrown out of employment. The turn-out in this ended in the complete discomfiture of the men, and it forms the only instance in these trades of a manufacturer having single-handed defied the whole power of one of the most extensive unions in England, and at length gaining the victory. Every mode of annoyance which the union could devise was put in practice on that occasion. This strike was the cause of the invention of the wool-combing machine, which wholly superseded the labor of the combers, who were the chief ringleaders in the affair, and inflicted a blow on the combination from which it never afterward recovered.

#### ENGINEERS' STRIKE.

The Amalgamated Engineers' strike of 1851-'52, was, in most respects, like other strikes, intolerant and injudicious. It was a foolish attempt to organize labor upon principles which have hitherto proved fallacious, and which, on their application, have uniformly resulted in destroying that which they assume to protect and uphold. As regards the principle which should regulate their particular class of labor—and, indeed, all labor—they do not appear to have had a very clear and just perception. The preamble to their rules is worded as though the association was simply a benefit club, or a friendly society; but as we travel on we find an ominous sentence or so, which at once throws a steady light upon the purport and intent of the body. They look upon their "vested interests," as they term them, as analagous to those of a physician who holds a diploma, or of an author who is protected by a copyright.

As regards wages and the hours of labor, the council says that the wages in a certain kind of work shall be not less than 35s. per week. The relative merits of workmanship or individual skill have nothing to do with the question; these elevated qualities must be lowered to suit the comparatively weak and unskillful, and no man shall presume to raise himself above mediocrity. They are under orders, it will be seen, in all the daily business of their lives. They work, or are idle; they earn, or are destitute; they go out or come in; they obey or disobey their employers; they prosper, or suffer, according to order. If there is anything more despotic than this in the broadest socialism denounced on the continent, we have never heard of it.

After a protracted struggle between the Amalgamated Engineers and their employers, in which a good deal of ill-will was generated, the dispute virtually terminated in the unconditional submission of the men to the terms required of them.

The immediate cause of the strike was the desire on the part of the men, to abolish overtime and piecework. The effect of piecework and overtime, according to the views of the council, is that it causes redundancy of labor. There is, perhaps, never too much for all the hands there are to do it—generally too little; and if men work overtime, or increase production by piecework, they also increase the disproportion between the labor there is to be done and the number of hands to do it. Those hands, thrown unemployed upon the labor-market, become at once the competitors of the men in work

and a burden on the funds of the society to which they belong. They at the same time draw upon the resources of the workers, and enable the employer, by pitting one class against the other, to diminish those resources; and thus a universal game of "beggar my neighbor" is set up, and the broken of to-day become the breakers of to-morrow.

A more extended account than the above brief abstract of Mr. Ward's chapter on the strike of the Amalgamated Engineers in 1851-'52 would, no doubt, prove instructive, but preference is given to the following history of the engineers' strike on the Tyne, prepared expressly for this report by Evan R. Jones, Esq., United States consul at Newcastle-upon-Tyne:

#### THE ENGINEERS' STRIKE ON THE TYNE.

Since the great Preston strike in 1854, when 17,000 cotton-operatives turned out for an advance of 10 per cent. on their wages, England has not witnessed such a determined contest between capital and labor as the engineers' strike in Newcastle and district for a reduction of the hours of labor from fifty-nine to fifty-four hours per week. It will be remembered that the cotton-operatives were unsuccessful, after enduring the hardships and privations consequent upon such a strife for thirty-six weeks; whereas the Newcastle engineers, at the end of a twenty-week strike, carried on with great ability and resolution on both sides, won the day, and completely revolutionized the labor-market of Great Britain.

The nine-hour movement had been agitated with varying zeal for many years, and on the 1st of April, 1871, it showed signs of life at the neighboring town of Sunderland, when a large number of engineers came out on a strike for the success of the enterprise. The men achieved a victory after a short struggle of four weeks and two days.

The masters on the Tyne, taking warning from the attitude assumed by the men at Sunderland, held a meeting on the 8th of April (one week after the commencement of the Sunderland strike) and pledged themselves to aid and support the Sunderland masters in resisting the demands of the men. As already shown, the employers at that town were not equal to the emergency.

On the 10th of April the Newcastle engineers held a meeting with a view of procuring aid for their fellow-workmen on strike, and to take the necessary preliminary steps toward extending the arena of struggle to include Newcastle. The workmen were in council quite frequently during the following weeks; the idea of striking for the nine-hours system was fast becoming popular, and on the evening of the 2d of May the movement assumed definite shape in a circular, which was couched in firm but respectful language, asking a reduction of the hours of labor from fifty-nine to fifty-four hours per week, and expressing an earnest desire to settle the matter "without a resort to extreme measures." This was signed by "the acting committee of the Nine-Hours League," and sent to the various employers of engineers on the Tyne, with a request that an answer might be returned before the 12th of the same month.

Upon the day following the receipt of the circular, the masters met at the Station Hotel for its consideration, Sir William Armstrong in the chair, and the proposition of the Nine-Hours League was unanimously declined in a letter addressed to the secretary of the league by the solicitors of the masters.

Both employers and employed were now organized for the coming battle, the clouds were gathering from all points of the compass, and a storm was inevitable. With all the respect which is due to the masters and to their able chairman for his efforts on their behalf, I must be permitted to compliment the men, and especially the league committee, for the sound policy which dictated most of their movements from the beginning. They evinced particular solicitude that their cause should *stand well with the people*, and the many stratagems which they executed during the campaign stamp them as apt politicians.

The next move by the league was a proposition to appoint six of their number to meet a like number of their employers "to try to come to some understanding," but unfortunately a small body of men had already turned out, and the masters declined the meeting, stating that they would have suggested a written communication from the league in preference to a meeting, but for the fact that a strike had already taken place. This communication, like the first, reached the men through a law-firm, a course peculiarly distasteful to the men. Not only did the masters decline to meet their workmen, they would not even communicate with them, save through the medium of their legal advisers. The men were hurt, offended. The masters considered this the wisest mode of procedure. I believe firmly that it precipitated the strike and added fuel to the flame.

On Saturday, May 20, the league held another meeting, and, after discussing the reply of the masters, the following resolution was passed almost unanimously:

"This meeting, feeling that the time for energetic action has arrived, recommends the

following factories to come out on strike as soon as they have worked a legal notice, (one week :) Hawthorn & Co., Forth Banks, Thompson & Boyd, Abbott & Co., Black, Hawthorn & Co., Joicey, Elswick Engine-Works, T. Clark & Co., and Clark, Watson & Gurney."

The men now became enthusiastic in favor of the movement, and 7,500 gave in their notices, as authorized by the foregoing resolution.

The flour-dealers took time by the forelock, and declared through the daily papers that in the event of a strike the staff of life would be sold for cash only.

On Wednesday, the 24th, a committee of the chamber of commerce memorialized the mayor to offer his services as a mediator to the parties in dispute in order to avert, if possible, the threatened calamity, who undertook the delicate duty. On the following day a deputation from the league waited upon him and stated their grievances and the redress sought for. The mayor next called upon the masters assembled at the Station Hotel and explained to them the position assumed by the men and suggested a meeting of six of the masters and six of the men to discuss the question in all its bearings. In answer to a question, he stated that he did not consider himself authorized to make the proposition, but believed that the men would make overtures for such a meeting did they but believe that such a proposal would be entertained by the masters. The masters had, upon the day previous, resolved that united opposition be given to the strike which has commenced, and the mediation of the mayor was unavailing. The employers evidently did not deem it advisable to meet the men, but stated that they would "at all times be ready to receive and carefully consider any written communication from them."

By the following Saturday, several thousands of the men, having worked the legal notice, left the various shops, not to return on Monday morning.

The men employed at the locomotive and engine works of Messrs. Robert Stephenson & Co. had not cast their lot with the engineers of the other shops, but, acting independently, applied for the nine hours' concession; their application was made known to the head of the firm at London, and elicited a kind letter, setting forth the facts bearing on the case and the reasons why it would be incompatible with the circumstances in which the proprietors were placed, and ultimately injurious to the interests of the workmen themselves, to make the proposed reduction in the hours of labor.

Mr. Stephenson, in his communication, stated that the manufacture of locomotive and marine engines had encountered severe competition at home and abroad, and to meet that competition the proprietors had submitted to an enormous increase in the expenditure of capital for the purchase of new tools and expensive machinery, which could only yield a return for the outlay while it was at work, and a consequence of the adoption of the nine-hour movement would be an immediate serious loss, as the quantity of work would be materially reduced by a shortening of the time, while the fixed charges for rent and expenses of management would remain the same. He also added that there was no probability that the competition would be diminished; and as the proprietors had, during the recent period of depression, accepted large contracts which were in themselves unremunerative, for the express purpose of keeping their men and machinery employed, the question became particularly serious in their case, as they could not fail to foresee that acquiescence in the present demand would endanger the stability of the establishment itself, which had at all times consulted the best interests of the workmen.

I have thus given a brief summary of the argument adduced against the reduction of the hours of labor to show the magic of a few kind, considerate words upon the brawny sons of toil, Mr. Stephenson having always treated his men with the utmost kindness, and having abstained from joining any combination of employers in opposition to workmen. The result was that the 1,400 men employed at the works of Messrs. Stephenson & Co. never left their work for a single hour. Had the answer reached them through a law-office, things might have been different.

During the months of June and July, the officers of the league exerted themselves in procuring funds from their class, in the various large towns in the country, and in securing employment elsewhere for the men on strike. This enabled them to make more liberal distributions of money to those remaining at Newcastle. The first allowance of 3s. per man was made on the 6th of June, to the men who were the first to stop work. During the following week a general apportionment of 1s. 9d. per man was made. These money-allotments, at first trifling and irregular, were soon established as weekly payments, and steadily increased in amount, so that toward the end of July the men were receiving 4s. each and 1s. for every child. The number of men entitled to relief had by this time been reduced from something like 3,000 to 2,770. The United States obtained some first-class workmen during the progress of this strike.

During the two months specified several meetings of the workmen were held on the town moor, when the officers rendered an account to the men of their stewardship, and urged them to stand firmly to the end.

All the initiatory steps for these mass-meetings were taken with a view of creating

as much enthusiasm as possible, for quite a number of those on strike were beginning to lose that necessary element in battle, under the influence of short rations. A procession was regularly formed; numerous flags and appropriate mottoes were distributed at intervals along the line, the band struck up, and the procession moved through the principal streets to a stand previously erected on the moor.

Efforts were again made by independent gentlemen to have this difficulty between employers and employed settled. Mr. C. M. Palmer, head of the large ship-building establishment at Jarrow, offered his services as peace-maker, and masters and men were finally brought face to face, through his good offices. The meeting was held at the council-chamber, and amounted to this: The masters stated that they had a compromise to offer, providing the men would agree to vote upon its acceptance or rejection by ballot. The representatives of the league declined the proposition. They objected to having the masters dictate to them how the question should be decided, and here in my opinion they showed a want of confidence in the result of a secret vote. To say that they were so excessively sensitive and independent as to refuse a good proposition, simply because it came from the masters, would be to do them an injustice.

On the 2d of August, the compromise which the masters desired to submit to a vote by ballot by the men became known through the medium of large posters put in conspicuous places about the town; after stating among other things that their work would be "opened at the usual hours for the re-engagement of their men." On the following morning they proceeded to give the rules to be observed by those who would resume labor, from which I extract the following:

"Working-hours inside: The working-hours to be fifty-seven per week, arranged as may be agreed on between the employers and workmen.

"Working-hours outside: Time actually at the work or on board ship only to be reckoned. A fixed time-allowance to be added for traveling, so as to make the total hours equal to shop-hours.

"Allowances and traveling expenses to remain as at present.

"Overtime: All time over and above fifty-seven hours per week to be valued at rate and a quarter, except in case of workmen required to work all day, and the whole or a portion of the succeeding night, who will be paid at the rate of time and a half for the time worked after 10 o'clock.

"All work on Sunday to be considered special, and the hours worked to be valued as at present, with usual meal-hours."

The compromise met with decided opposition from the league, and entirely failed in its object.

The masters, still determined to combat the nine-hours movement to the end, began to look elsewhere for the labor denied them at home. Agents were sent to the manufacturing towns in this country, and to the continent, to employ engineers for the various works. A counter-plot was set on foot by the league. The various trades societies throughout the country were requested to foil the efforts of the masters. An agent was sent to Belgium to make known to the workmen of that country the nature of the struggle going on between capital and labor on the Tyne. The strife now became bitter and relentless. The masters appealed to employers of labor throughout Great Britain for material aid toward resisting the demands of the men. The league had already canvassed the country for assistance toward maintaining the struggle, which by this time was generally acknowledged to be of national importance.

The month of August was spent by the contending parties in prosecuting their respective plans, with a view of obtaining the victory.

By this time the efforts of the employers to import labor was bearing fruit. From the letter of Sir William Armstrong to the London Times, dated September 12, I find that the total number of workmen introduced to this district from England, Scotland, and the continent amounted to 1,917, to which is added 1,375, who either never left their work, had been hired on the spot, or had returned to their engagements, making in all 3,000 hands.

It is but fair to state, however, that this exhibit is qualified by Mr. Burnett, the president of the league, who says that the 1,375 hands who had either continued at work, had been engaged in the district, or had been imported from without, can only be made up by including clerks, draughtsmen, and foremen, a class which formed a very great proportion of those then at work, especially in the establishment of Sir William Armstrong and partners.

The mission of Mr. Cohn, the agent of the league on the continent, was destined to be short-lived. The authorities interfered, and he was permitted to return to London. But his failure abroad only stimulated him to extra exertions at home, and by his persuasive eloquence he induced many of the Germans, Norwegians, and Belgians to return to their native land. The masters, through their agent, had entered into a contract with the foreigners for a service of six months. It was therefore necessary that every precaution should be taken to conceal all movements preparatory to their departure from the masters and police, for by this act they were violating their contracts and were

amenable to the law. In their endeavors to run the blockade the strangers left their trunks behind them, many having previously put themselves inside of no less than five shirts and three pairs of trousers. They usually decamped under cover of darkness, and were piloted to steamers about to sail by guides from the league, their passage being already provided for.

During the months of August and September the masters brought actions at law against a large number of men for breach of contracts, and against a few for assault and kindred complaints. I must be permitted to add that actions for assault and disorderly conduct were of a trivial nature and rare of occurrence. Indeed, the men on strike acquitted themselves throughout the prolonged struggle in an orderly, peaceful, and highly creditable manner, and this while their places at the lathe and the anvil were being filled by strangers, while the pale cheek of the wife and the pitiful cries of the child made the heart bleed, while the arm that could relieve them was doomed for a time to hang paralyzed by the workman's side.

I felt that the employers would be among the first to come forward and indorse the verdict I have pronounced.

If such injurious measures as strikes are again resorted to in this and other countries, may the noble example of the Newcastle engineers for law and for order be emulated and imitated everywhere.

Late in September the following proposition was submitted by the league to the masters, through the agency of Mr. Mundella, M. P., who had come to Newcastle to contribute his influence toward bringing a long-standing difficulty to a close:

"If our employers will concede the three hours per week reduction in our working-time, which is now in dispute between us, we, on our part, will consent to a reduction in our wages, the amount of the reduction to be settled either on mutual agreement between ourselves and employers or by arbitration."

After careful consideration, the men's offer was declined, as will be seen by the following extract from Sir William Armstrong's letter to Mr. Mundella, dated September 30:

"Our proposal is that the question should be compromised by the acceptance on the part of the men of two hours out of the five demanded, and that in lieu of the remaining three hours they should take a proportionate increase of wages. The condition of trade justifies, as we have always admitted, an advance of wages, so that the proposed advance, unlike the proposed reduction, does not conflict with the laws of supply and demand. This increase of pay would amount to 5 per cent., and would apply to every kind of skilled labor; adding the value of the two hours conceded in time, it would represent a total advance of  $8\frac{1}{4}$  per cent. on the wages current when the strike began."

It will be observed that Mr. Mundella's mission proved ineffectual, as had the efforts of those who had preceded him as mediators between the contending parties.

At this time the weekly distribution of money amounted to 12s. per man and a shilling extra for each child; and although that sum falls far short of being adequate to the requirements of a man who has a wife and children dependent on him for support, it shows that the financial position of those on strike had been gradually improving since the first general allotment of 1s. 9d. per man was made in the early part of June.

While the praiseworthy efforts of Mr. Mundella were still fresh upon the minds of those concerned, Mr. Joseph Cowen, proprietor of the Newcastle Chronicle, and Mr. R. P. Philipson, town clerk, gentlemen held in high esteem by their townsmen, met in secret conclave on the morning of October 5, and drew up the following articles, with fervent hopes that they would be favorably received by the disputants:

"Suppose the employers were to concede the fifty-four hours per week, the men would agree to work overtime when and to the extent required by the employers.

"The wages, both as to ordinary wages and as to overtime, to remain the same in the different factories as existed prior to the strike.

"The wages to be reckoned by the hour and quarter hour, and paid weekly at 12.15 p. m. on Saturday.

"The agreement to be for twelve months, with power to either party to determine it at the end of six months by giving one month's previous notice.

"The men to go to work on the arrangement now existing in the shops, (57 hours,) and he new terms (54 hours) to take date from January 1, 1872."

The foregoing terms were submitted to the associated masters by Mr. Philipson, and to a delegated meeting of the Nine Hours League by Mr. Cowen, on the evening of the same day, and to the great satisfaction of the entire community the terms were accepted by both parties. Matters of detail were speedily arranged, and on Thursday morning, October 12, after a strike of twenty weeks, the men returned to their labor with elastic tread, to gladden the hearts of forty thousand souls.

## THE STORY OF A FEW STRIKES.

[The following article is from the Chicago Tribune.]

The Hon. A. S. Bolles, in his just published "Chapters on Political Economy," quotes from Thornton's "Labor" and Ward's "Workmen and Wages" the figures of the cost of some famous strikes to the strikers. We reproduce them from his book, and add others:

In 1829, the Manchester spinners struck. They lost \$1,250,000 in wages before the dispute was at an end. The next year their brethren at Ashton and Staleybridge followed their example in striking and in losing \$1,250,000. In 1833, the builders of Manchester forfeited \$360,000 by voluntary idleness. In 1836, the spinners of Preston threw away \$285,000. Eighteen years afterward, their successors, 17,000 strong, slowly starved through thirty-six weeks and paid \$2,100,000 for the privilege. In 1853, the English iron-workers lost \$215,000 by a strike. Such losses marked, too, the strikes of the London builders in 1860 and tailors in 1868, and the northern iron-workers in 1865. The strike of the Belfast linen-weavers, which was ended a few weeks since by the mediation of the British Association for the Advancement of Science, cost the operatives \$1,000,000. The recent strike of the shoemakers of Chicago cost them a much larger sum than they needed as a capital for a co-operative shop of their own. After they had wasted the first sum, they tried in vain to raise the second.

We might add instance to instance to prove the enormous cost of strikes to the workman. Even when they succeed, the result rarely, if ever, pays for the money unproductively spent. When they do not, the money is of course a dead loss. It is absurd that workmen, in the face of such facts, should persist in using this two-edged weapon against their employers. In England, Messrs. Mundella's and Kettle's boards of arbitration, and the introduction of industrial partnerships between masters and men, have done much to prevent strikes. In France, the state long since established courts of arbitration for the settlement of labor quarrels. They are composed of six members, chosen by employers and employed, and a president and vice-president, who must belong to neither class. Mr. Thomas Brassey, in his "Work and Wages," says of these courts: "The result in 95 out of 100 cases brought before these tribunals is a reconciliation between the parties; and, though appeals are permitted to the superior courts of law, they are rarely made. In 1870, 28,000 disputes had been heard, of which no less than 26,800 were satisfactorily settled."

## CO-OPERATION.

That a strike, so long as it is unaccompanied by violence or intimidation toward such as do not voluntarily engage in it, is a means which workmen may legitimately use in their efforts to advance their interests, must, of course, be freely admitted. But that it is a most costly and hurtful method of settling trade-disputes is a fact which workmen themselves have now very generally learned by sad experience. The chairman of the trades union congress of the United Kingdom, held at Liverpool in January, 1875, in his opening address referred to strikes as a mode of settling differences with employers which ought to be avoided by all practicable means, and resorted to only in the most extreme cases; and the same opinion, after being repeatedly indicated in the speeches of leading delegates, was substantially embodied in a resolution adopted by the assembly itself, in which fully 800,000 of the trades-unionists of the British Isles were represented. As a natural sequence to a resolution of this character was another, recommending the adoption of that system which is designed to reconcile the now conflicting interests of capital and labor by uniting the two in the same hands, namely, the system of co-operation, and expressing a cordial desire to act in harmony with the co-operators of the United Kingdom. Similar sentiments are to be met with in the documents issued by the leading trades-associations, as well as in their most influential newspaper organs; and in fact the system of co-operation itself, as a practical reality, is making rapid advancement among the working-classes.

As long ago as 1832, Mr. Babbage suggested the advantages which workmen might derive from co-operative stores. The Rochdale

Pioneers commenced in 1843 the enterprise which has since become so celebrated. It originated in the attempt of some flannel-weavers to obtain an advance in wages, failing in which they resolved to try whether they could not make the wages they were receiving procure them a larger share of the necessaries and comforts of life by starting a store on their own account. A company of forty persons engaged, at a rent of £10 per annum, "th' owd weaver's shop" in "Toad Lane," in which they commenced business with a beggarly stock of salt, butter, and oatmeal. At the end of fourteen years they were doing a cash business to the amount of £76,000 per annum. To their original stores they have added several other departments of trade, and have now a good library of from 12,000 to 15,000 volumes.

The returns furnished to the registrars of friendly societies of England and Wales, Scotland, and Ireland, respectively, as to the industrial and provident co-operative societies in the three divisions of the kingdom, at the close of 1873, show the following results:

	England and Wales.	Scotland.	Ireland.
Number of societies.....	790	188	6
Number of members.....	340,930	46,371	464
Number of members admitted during the year 1873.....	70,360	.....	.....
Number of members withdrawn during the year 1873.....	31,626	.....	.....
Share-capital, amount of, at end of the year 1873.....	£3,334,104	£235,858	£1,443
Loan-capital, amount of, at end of the year 1873.....	£431,308	£64,932	£90
Cash paid for goods during 1873.....	£12,344,780	£56,130	£14,576
Cash received for goods during 1873.....	£13,651,127	£1,965,226	£16,161
Average value of stock during 1873.....	£1,439,137	£188,265	.....
Total expenses during 1873.....	£541,824	£67,468	£774
Interest on share, loan, and other capital during 1873.....	£152,596	£12,084	.....
Entire liabilities at end of 1873.....	£4,081,512	£400,590	.....
Reserve-fund at end of 1873.....	£83,149	£19,573	.....
Entire assets at end of 1873.....	£4,430,334	£462,857	.....
Value of buildings, fixtures, and land.....	£1,361,197	£97,869	£633
Capital invested with other industrial and provident societies.....	£337,811	£32,591	.....
Capital invested with companies incorpo- rated under the companies act.....	£443,724	£5,315	.....
Disposable net profit realized from all sources during 1873.....	£958,721	£150,302	£863
Dividend declared due to members during 1873.....	£861,964	£132,643	.....
Dividend allowed to non-members during 1873.....	£18,555	£3,147	.....
Amount allowed for educational purposes during 1873.....	£6,864	£243	.....



## UNITED KINGDOM OF GREAT BRITAIN AND IRELAND.

In the foregoing discussion of the labor question as it is presented in the history of the earlier centuries of modern times, as well as in the recent past, much space has been devoted to statements and illustrations which have been drawn from the experience of the mother country. The fact that less than a century ago the greater part of our present territory constituted provinces of Great Britain, previous to which the manufactured goods consumed in the colonies were chiefly produced in England, and the further fact that during the past ninety-nine years the mills and factories of Great Britain have supplied us with products the annual value of which has, of late years, reached hundreds of millions of dollars, render all the data which relate to this subject of the greatest importance to us. No apology is therefore offered for the space devoted to the history of labor in Great Britain and the modifications which law and custom have from time to time effected in the condition of the laboring-classes.

## VOLUME OF TRADE WITH THE UNITED STATES.

Before proceeding to a consideration of the present cost and condition of labor in the United Kingdom, the following tables showing the volume of the trade between the two countries are presented: Table I exhibits the kinds and values of British merchandise which found a market in the United States during the fiscal year 1874; Table II, the aggregate annual value of the imports from England, Ireland, and Scotland, respectively, during the fifty-four years ended June 30, 1874; and Table III, the value of provisions, breadstuffs, and raw products which were exported to those countries during the past year.

## IMPORTS FROM THE UNITED KINGDOM.

*I.—Table showing the value of the principal articles imported into the United States from England, Scotland, and Ireland, during the fiscal year ended June 30, 1874.*

Articles.	England.	Scotland.	Ireland.
Beer, ale, porter, &c .....	\$1,231,682	\$179,285	\$103,834
Books, pamphlets, &c .....	1,969,852	139,956	306
Buttons of all kinds .....	657,776	2,672	.....
Chloride of lime .....	991,452	96,760	.....
Clothing .....	510,995	6,792	6
Coal, bituminous .....	337,379	146,206	.....
Copper and manufactures of .....	124,873	10	.....
Cordage, &c .....	88,357	932	.....
Cotton, manufactures of .....	16,534,811	2,918,211	34,360
Earthen, stone, and china ware .....	3,779,727	40,207	96
Fancy goods .....	939,614	45,525	.....
Flax, manufactures of .....	12,037,195	3,775,712	653,676
Glass and glass-ware .....	1,680,061	7,585	82
Hair, unmanufactured .....	149,550	672	.....
Hides and skins .....	3,772,465	.....	11,018
Hemp, manufactures of .....	96,733	.....	.....
India rubber, manufactures of .....	598,020	364	.....
<b>Iron and steel:</b>			
Pig-iron .....	1,380,014	947,972	58,740
Bar-iron .....	1,002,486	.....	.....
Boiler, hoop, scroll, and sheet iron .....	667,172	2,150	.....
Rails of iron .....	966,552	.....	.....
of steel .....	8,104,377	1,113,561	.....
Old and scrap iron .....	283,521	.....	104,452
Hardware and cutlery .....	2,063,722	490	.....
Steel ingots, bars, &c .....	2,865,470	5,348	2,977
Fire-arms .....	520,451	2,368	.....
Machinery .....	1,127,525	109,543	.....
Other manufactures, not elsewhere specified .....	5,212,518	86,972	.....
<b>Total of iron and steel .....</b>	<b>24,273,808</b>	<b>2,268,372</b>	<b>162,169</b>

## I.—Value of the principal articles imported into the United States, &amp;c.—Continued.

Articles.	England.	Scotland.	Ireland.
Jute, manufactures of.....	\$1,564,119	\$443,885	\$349
Leather and manufactures of.....	2,189,885	3,770	.....
Marble and stone and manufactures of.....	165,877	237,608	250
Metals and manufactures of.....	495,664	16,172	65
Paints.....	702,343	7,175	.....
Paper materials.....	1,468,187	64,107	14,604
Paper and manufactures of.....	811,131	99,837	.....
Silk, manufactures of.....	6,313,941	11,944	609
Soda and salts of.....	5,938,157	37,308	.....
Straw, manufactures of.....	307,579	20	.....
Tin in pigs, bars, or blocks.....	1,857,167	4,582	.....
Tin, manufactures of.....	13,014,701	6,009	3,485
Wool, manufactures of.....	29,917,039	295,086	2,635
Zinc, &c., manufactures of.....	187,674	13,618	71

## II.—Table showing the value of imports of merchandise from England, Scotland, and Ireland, during the fifty-four fiscal years ended June 30, 1821 to 1874, inclusive.

Fiscal year ended—	Imports of merchandise into the United States from—		
	England.	Scotland.	Ireland.
September 30, 1821.....	\$22,535,333	\$1,220,092	\$683,471
September 30, 1822.....	32,008,936	1,889,216	800,044
September 30, 1823.....	26,018,448	1,083,133	543,313
September 30, 1824.....	26,508,758	1,025,020	431,637
September 30, 1825.....	34,188,632	1,829,464	612,272
September 30, 1826.....	24,239,992	1,096,772	672,994
September 30, 1827.....	28,522,772	1,083,101	550,129
September 30, 1828.....	30,445,167	1,624,030	711,041
September 30, 1829.....	23,852,937	1,024,215	362,511
September 30, 1830.....	22,610,809	1,382,841	381,333
September 30, 1831.....	41,723,493	1,977,830	261,564
September 30, 1832.....	34,764,923	1,580,812	491,891
September 30, 1833.....	34,784,927	1,725,136	473,162
September 30, 1834.....	39,760,452	1,398,130	274,712
September 30, 1835.....	57,763,551	1,622,848	542,690
September 30, 1836.....	73,438,793	2,372,539	508,356
September 30, 1837.....	43,442,458	1,184,410	131,776
September 30, 1838.....	35,182,511	594,665	75,163
September 30, 1839.....	63,443,624	950,183	150,689
September 30, 1840.....	32,410,827	524,927	98,349
September 30, 1841.....	45,149,477	840,575	81,921
September 30, 1842.....	33,240,580	655,050	102,700
Five months ending June 30, 1843.....	11,835,404	128,846	43,535
June 30, 1844.....	40,344,122	527,239	88,084
June 30, 1845.....	44,507,031	708,187	104,857
June 30, 1846.....	43,361,449	1,230,086	85,774
June 30, 1847.....	64,975,592	1,837,014	590,240
June 30, 1848.....	57,840,550	1,659,494	293,978
June 30, 1849.....	56,146,633	1,959,320	376,793
June 30, 1850.....	71,591,705	2,746,670	298,723
June 30, 1851.....	89,513,571	2,999,710	235,938
June 30, 1852.....	86,641,375	2,355,947	152,533
June 30, 1853.....	125,489,433	4,337,990	153,118
June 30, 1854.....	140,303,577	5,820,469	229,335
June 30, 1855.....	102,328,825	3,954,594	152,293
June 30, 1856.....	117,693,773	4,131,506	89,032
June 30, 1857.....	119,404,475	7,216,111	113,453
June 30, 1858.....	83,690,980	5,160,767	115,260
June 30, 1859.....	117,685,586	7,079,905	758,547
June 30, 1860.....	132,969,411	4,607,187	923,726
June 30, 1861.....	101,743,552	2,963,524	190,834
June 30, 1862.....	74,759,710	.....	.....
June 30, 1863.....	*112,898,201	.....	.....
June 30, 1864.....	*142,304,433	.....	60,634
June 30, 1865.....	83,240,527	1,881,206	74,286
June 30, 1866.....	106,356,036	5,845,328	77,508
June 30, 1867.....	165,162,468	7,157,862	87,108
June 30, 1868.....	125,129,809	6,795,805	911,063
June 30, 1869.....	151,231,801	7,446,251	247,075
June 30, 1870.....	144,474,890	7,444,304	240,463
June 30, 1871.....	209,075,220	11,452,688	487,430
June 30, 1872.....	233,943,322	14,341,578	435,814
June 30, 1873.....	222,517,634	14,344,770	1,030,229
June 30, 1874.....	166,846,132	12,166,452	.....

\* Including Scotland and Ireland.

## EXPORTS TO THE UNITED KINGDOM.

III.—Table showing the exports of commodities, the growth or produce of the United States, to England, Scotland, and Ireland, during the fiscal year ended June 30, 1874.

Commodities.	Domestic exports from the United States to—		
	England.	Scotland.	Ireland.
<b>Breadstuffs:</b>			
Wheat.....	\$43, 128, 552	\$5, 861, 579	\$25, 903, 529
Wheat-flour.....	8, 819, 064	2, 444, 513	285, 345
Indian corn.....	7, 433, 120	1, 820, 460	10, 667, 907
All other.....	385, 033	105, 980	16, 666
<b>Total.....</b>	<b>59, 806, 769</b>	<b>10, 232, 534</b>	<b>36, 873, 347</b>
<b>Cotton, raw.....</b>	<b>136, 938, 187</b>	<b>564, 846</b>	<b>3, 855, 303</b>
Hair, unmanufactured.....	240, 144		
Hides, furs, and fur-skins.....	3, 474, 769		
Leather.....	2, 683, 174		
Naval stores.....	1, 110, 083	181, 194	134, 821
Oil-cake.....	3, 624, 465	309, 006	43, 465
<b>Oil:</b>			
Coal, (crude and refined).....	3, 500, 376	39, 360	1, 798, 535
Animal and vegetable.....	1, 076, 640	368, 020	
Ore, argentiferous.....	255, 814		
<b>Provisions:</b>			
Bacon and hams.....	22, 222, 544	3, 945, 563	
Beef.....	1, 773, 483	362, 400	400
Butter.....	218, 778	85, 413	
Cheese.....	9, 129, 370	1, 083, 708	
Fish, (pickled and dry).....	590, 061		
Lard.....	3, 119, 295	889, 976	
Meats, preserved.....	404, 114	57, 947	
Pork.....	1, 600, 639	179, 373	425
All other.....	61, 753	2, 040	
<b>Total.....</b>	<b>39, 120, 030</b>	<b>5, 805, 619</b>	<b>825</b>
<b>Seeds.....</b>	<b>227, 186</b>	<b>85, 569</b>	<b>4, 906</b>
Spirits of turpentine.....	1, 238, 046	61, 819	440, 554
Sugar and molasses.....	228, 071	146, 819	
Tallow.....	3, 613, 703	1, 010, 859	4, 906
<b>Tobacco:</b>			
Leaf.....	7, 607, 530	755, 451	2, 889
Manufactured.....	1, 251, 592	12, 738	
Timber, lumber, &c.....	3, 573, 266	756, 919	355, 569
Other unmanufactured articles.....	665, 792	50, 156	
Other manufactured articles.....	6, 023, 196	839, 892	58, 375
<b>Total.....</b>	<b>276, 333, 833</b>	<b>21, 120, 561</b>	<b>43, 569, 655</b>

NOTE.—The aggregate quantities of the principal articles exported to the United Kingdom in 1874 were as follows: Raw cotton, 903,571,772 pounds; wheat, 51,833,278 bushels; wheat-flour, 1,703,984 barrels; bacon and hams, 262,723,419 pounds; beef, 23,721,364 pounds; pork, 20,029,998 pounds; cheese, 78,552,976 pounds.

The above table not only shows the value of the cotton, but of the grain, timber, naval stores, and other crude products of our fields and forests, and of animal products, which find a market in the United Kingdom. The greater part of these may be classed as the raw materials of English manufactures, for the breadstuffs and provisions, as well as the cotton, the leather, the timber, and the leaf-tobacco, really become the elements of manufactured products.

Whether the material interests of the country would be better promoted by consuming at home a large portion of the food now exported and devoting it to the conversion of crude products into manufactured goods, is a question which will receive no consideration in these pages. Here, as elsewhere in this volume, the author contents himself with the presentation of facts, and declines entering upon the discussion of questions respecting which there are wide divergences of opinion.

## IMMIGRATION FROM THE UNITED KINGDOM.

In view of the fact that the inhabitants of the colonies which now compose the United States were, at the time of the change of government, chiefly of British birth or descent, it is not surprising that of the 5,367,229 persons of foreign birth who formed part of our population in 1870, no less than 3,119,705 were born in the United Kingdom and in the British North American possessions.

The immigration into this country from the British Islands during the fifty-four years, from 1820 to 1874, is exhibited in the following table:

*Statement showing the total immigration into the United States from Great Britain and Ireland during the fifty-four and a half years ended December 31, 1874.*

Periods.	England and Wales, Isle of Man, and Channel Islands.	Scotland.	Ireland.	Great Britain.*	Total.
1820 to 1830, inclusive.....	16,007	3,180	27,106	35,534	81,827
1831 to 1840, inclusive.....	7,796	2,667	29,188	243,540	283,191
1841 to 1850, inclusive.....	33,353	3,719	162,332	748,366	1,047,763
1851 to 1860, inclusive.....	53,444	38,331	748,740	897,578	1,338,080
1861 to 1870, inclusive.....	218,027	36,733	495,969	356,247	1,106,976
Calendar year 1871.....	62,525	12,135	61,463	7,814	143,937
Calendar year 1872.....	73,679	14,565	60,761	.....	157,905
Calendar year 1873.....	70,499	13,008	75,248	.....	159,355
Calendar year 1874.....	43,969	8,765	47,688	.....	100,422
Aggregate.....	779,199	133,096	1,718,095	1,789,079	4,419,469

\* Nationality not stated; supposed to be chiefly from Ireland.

Owing to the defective returns of the nationalities of immigrants prior to the establishment of the Bureau of Statistics, the countries of nativity of large numbers who came from the British Isles were not set forth in the returns, but their place of birth designated as "Great Britain," as will appear by reference to the fifth column of the above table. From a careful analysis of some of the original papers, an approximate estimate has been made of the proportion of persons of Irish nativity who are included in the number of those "not stated," which, in addition to the 1,718,095 Irish immigrants given in the table, shows that of the 4,419,469 arriving from the British Isles in a little over half a century, upward of 2,950,000, or two-thirds, were natives of Ireland.

Of the large foreign element in the city of New York, amounting to no less than 419,094 in the census-year 1870, the natives of Ireland were 201,999, a number almost equal to the whole population of Dublin, which, in 1871, was 246,326. Indeed, if the Irish in Jersey City, Brooklyn, and other adjoining cities, which really form a part of the commercial metropolis of America, be included, the number would fully equal, if not exceed, the aggregate population of Ireland's chief city.

## I.—RATES OF WAGES IN THE UNITED KINGDOM.

Before presenting the tables showing the earnings of factory-operatives in various manufacturing towns of the United Kingdom, the following statement, showing the rates of wages paid to mechanics and other skilled workmen in the metropolis, is submitted :

## SKILLED TRADES IN LONDON, WEEKLY WAGES IN 1871.

*Statement showing the established rates of wages obtained by members of the various trades-societies of the metropolis, in summer and winter, compiled under the supervision of Alsager Hay Hill, LL. B.*

Trades.	Number of members.	Rate of wages.	
		Summer.	Winter.
Bakers .....		\$3 87	\$5 08
Basket-makers .....		3 63	4 84
Boat-builders .....		8 47	7 26
Book-binders .....	702	7 26	7 26
Brass-cock finishers .....		8 47	8 47
Brass-finishers .....		8 47	8 47
Bricklayers .....	2,388	16*	16*
Brush-makers .....	400	(†)	(†)
Cabinet-makers .....	506	7 26	7 26
Cabinet-makers, deal .....	450	7 99	7 99
Carpenters .....	4,740	9 14	9 14
Carvers and gilders .....	50	4 84	4 84
Coach-builders .....	25	9 68	9 68
Coach-makers .....	320	9 68	9 68
Coach-smiths .....	200	4 84	12 58
Coach trimmers and makers .....		6 05	6 05
Compositors .....	3,550	4 84	8 47
Cork-cutters .....	100	7 26	7 26
Cordwainers .....	3,678	(†)	(†)
Curriers .....	1,900	8 47	8 47
Engineers .....	33,539	{ 16*	16*
Farriers .....	220	{ 18*	16*
French-polishers .....	30	9 68	12 10
Hammermen .....	80	7 26	7 26
Iron founders and molders .....	60	5 81	5 81
Letter-press printers .....	7,372	9 20	9 20
Painters, house .....		7 26	7 26
Pianoforte-makers .....	400	14*	14*
Plasterers .....		16*	16*
Plumbers .....		14*	14*
Pressmen, printers .....		18*	18*
Presmen, printers .....	60	7 26	7 26
Skinners .....	225	7 26	7 26
Steam-engine makers .....	100	{ 16*	16*
Stone-masons .....	17,193	{ 18*	18*
		9 14	7 26

\*Per hour.

†Piecwork.

‡Uncertain.

## AVERAGE EARNINGS OF OPERATIVES.

The tables in the following thirty-six pages, which were not personally obtained by the author, but derived from official sources, exhibit the earnings of work-people in the various industries and places indicated during the year 1871. Indeed, so far as factory-labor is concerned, the figures therein given express with approximate accuracy the cost but not the hours of labor which now obtain in the United Kingdom.

The object of the following statement is not to show the specific rates of wages paid to certain operatives, but *the average earnings* of operatives of various occupations in different localities. In a very large number of occupations the hands are paid by the piece or by weight, and the actual rate of wages would not indicate the sum an operative would take home with him at the end of the week as the price of his labor. The sums stated in all these tables are, therefore, the average sums earned per week, whether the labor be paid by the day or by the piece.

## COTTON MANUFACTURES.

In a fine-spinning factory at Manchester the following are the average weekly earnings of the operatives :

Hand-mule spinners, small mules*	†\$10 89
Hand-mule spinners, large mules*	12 10
Piecers, women	\$2 18 to 2 42
Piecers, young persons	1 57
Piecers, half-timers	60
Card-grinders, men	5 08
Card-strippers	4 35
Card-room frames, women	2 18 to 2 90
Lap-carriers, girls	1 57
Hand-reelers, girls	2 77
Mechanics	8 18

Hours of work, 59 per week.

\* These men employed from 3 to 6 piecers, often members of their own families.

† British £ sterling computed at \$4. 84, and the shilling at 24 cents.

## COTTON MANUFACTURES—spinning, weaving, &amp;c.

Occupation.	Bury, Lancashire.	Manchester.	Neighborhood of Manchester.	Blackburn.	Rockdale.	Glasgow.	Aberdeen.	Anyshire.	Oldham.
Willowers, devilers, cotton-opener minders	89 00						From \$1 33 up		
Blowing or scutching-room hands, women	2 80						\$1 33 to \$3 96		\$3 57 to \$5 28
Blowing or scutching-room hands, men	4 35							\$1 93	4 35 to 5 33
Females in spinning-room	4 35		\$5 08	\$3 57 to 4 35	\$3 57	\$4 35	96 to 7 98		6 29 to 12 10
Strippers and grinders, card-room, men	8 47		\$6 77 to 7 98		8 47		96 to 7 98		
Carders, men	4 84		5 08				96 to 7 98		
Under-carders, men	3 42			9 17 to 9 43			96 to 7 98		
Lap-carriers, lads	3 14		3 14 to 3 63	3 09 to 3 98		1 93	96 to 7 98		
Drawers, viz. draw-frame tenders, women	3 14		3 63 to 3 99	3 87			96 to 7 98		
Slubbers, women	3 14			3 57 to 4 35	3 98	3 17	96 to 7 98		
Rovers, women									
Overlookers, dressers, &c.								\$4 84 to 7 98	
Mechanics								4 84 to 6 77	
Back-tenders for rovers or creelers, girls	1 69			1 93 to 2 29		\$1 33 to 1 57			
Back-tenders to slubbers, girls	1 69								
Labors about mill, oilers and greasers	4 35								
Labors								9 90 to 3 87	
Mule-room overlookers, men	7 74			7 98 to 9 68	7 98		96 to 6 77		
Self-acting mule-minders, men	6 77			6 77 to 7 98		4 84 to 13 10	96 to 6 77		6 05 to 8 47
Self-acting mule pleasers, young men	2 90		6 90 to 7 98	3 14 to 3 57		9 49	96 to 6 77		3 14 to 3 63
Self-acting mule little pleasers, lads	1 69					1 57	96 to 6 77		2 17 to 3 66
Bleachers								3 38 to 4 84	
Self-acting mule creelers or back-tenders, lads	1 33							1 45 to 3 90	
Twinders on twining-jennies, same as self-acting minders	6 77								
Throstle-room overlookers	6 29							73 to 1 45	
Throstle-spinners, women	9 90				9 78				
Throstle-doffers, lads	1 57				9 17				
Throstle-doffers, half-time	72								
Throstle-doffers, winders, women and girls	2 90		2 90 to 3 63	2 90 to 3 38				2 17	
Female weavers									
Throstle-doffers, doublers, women and girls	2 90								
Beamers in warping-mills	2 90								
Ball-warpers, men	7 96				5 39				
Engine-tenders or engineers	6 77								
Jobbers or tacklers	7 96			7 98 to 9 68					6 29 to 8 28
Beamers	5 39	\$6 63							
Loom-tenders, girls and boys	1 91								
Slivers of warp, men, ball-drawers	6 29	7 74	7 74 to 8 71						6 05 to 7 74

[illegible]

**NOTE**—The hours of work are 60 per week; the wages partly piece-work, partly day-work.

[In the foregoing and following tables of wages and prices in the United Kingdom the British shilling has been computed at 24 cents, and the pound sterling as equivalent to \$4.84 in coin. Since these computations were made the equivalent value of the pound sterling has been recognised by Congress at \$4.8665; but the difference being small, it was not deemed necessary to make a re-computation.—E. Y.]



## DOUBLING, BLEACHING, AND DYEING COTTON THREAD.

Occupations.	Nottingham.	Paisley.	Remarks.
Overlookers, men.....	\$4 35 to \$6 05	\$5 32	Adults.
Bleachers, men.....	4 35 to 7 36		Do.
Dyers or finishers, men.....	4 35 to 9 06		Do.
Cop-winders, women.....	1 81 to 2 42	1 57	Do.
Doublers, women.....	1 93 to 2 42	1 93	Do.
Cleaners, women.....	1 09 to 2 05		Do.
Glassers, women.....	2 42 to 2 90		Do.
Rulers.....	2 29 to 2 66	2 17	Do.
Hank-winders.....	2 05 to 2 42		Do.
Boys and girls under 14.....	96 to 1 57		

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## WOOLEN MANUFACTURE—SPINNING, WEAVING, ETC.

Occupation.	Rochdale.	Dewsbury.	Leeds.	Manchester.	Neighborhood of Dewsbury.	Garncliffe.	Neighborhood of Huddersfield.
Layers on for scribblers, women.....	\$2 90	\$2 90	\$3 17	.....	\$2 42 to \$2 90	.....	\$1 81
Card setters or cleaners, men.....	4 35 to 4 84	4 11	.....	\$4 11	4 59	\$4 11	.....
Sliver-minders, girls.....	2 17	1 09	.....	.....	.....	.....	.....
Condenser-minders, girls.....	2 42	.....	.....	3 14	.....	.....	.....
Card-feeders, women.....	2 42 to 2 90	.....	.....	.....	.....	.....	.....
Woolers, men.....	3 63	3 87	4 84	4 11	2 42 to 3 87	.....	4 35
Woolers, foremen, men.....	4 84	5 06	.....	.....	.....	.....	.....
Self-acting mule-minders, men.....	4 35 to 5 56	3 63	.....	2 90	.....	.....	.....
Self-acting mule-piecers, boys.....	1 69	1 69	1 45	1 21	.....	.....	.....
Self-acting mule-piecers, boys and girls, half-timers.....	60 to 84	.....	.....	.....	.....	.....	.....
Rag-grinders, men.....	.....	4 84	.....	.....	.....	.....	.....
Enginemn and stokers.....	4 59 to 5 06	4 84	.....	.....	.....	.....	.....
Warpers.....	3 63 to 4 35	3 63	.....	3 38	2 90 to 4 35	6 29	.....
Power-loom tuners, men.....	5 80	8 47	.....	.....	5 80 to 12 10	.....	5 80
Power-loom weavers, women.....	3 38	3 38	2 90	3 38	2 42 to 3 87	3 38	\$2 66 to 3 87
Wool-sorters, men.....	6 29	6 05	6 05	.....	4 35 to 5 56	4 84	5 32 to 6 29
Fulling-millers, men.....	5 06	5 06	.....	5 32	6 05 to 8 47	4 35	4 84 to 5 06
Wool and piece-dyers, men.....	.....	5 32	.....	.....	.....	4 11	4 35
Cloth-dressers, vis, raisers, cutters, pressers, tenterers, drawers.....	.....	5 80	5 32	5 06	.....	.....	4 84
Burlers, women.....	2 17	2 42	1 21	.....	2 17 to 2 90	2 90	1 93 to 2 17
Riggers and stumpers, men.....	.....	5 06	.....	.....	.....	.....	.....
Menders and stumpers, women.....	.....	3 14	.....	.....	.....	3 38	.....
Oil-extractors, men.....	.....	5 80	.....	.....	.....	3 87	4 35
Mechanics and joiners, men.....	6 53	7 26	.....	.....	4 35 to 7 36	.....	6 53
Rag-pickers, women.....	.....	1 93	.....	.....	.....	.....	.....
Hand-spinners, men.....	5 32	6 77	.....	.....	6 05 to 7 36	4 84	5 80 to 7 36
Hand-spinners, young persons.....	.....	.....	.....	.....	.....	1 45	1 45
Slubbers.....	5 32 to 5 56	6 29	.....	.....	.....	.....	6 53

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## WOOLEN MANUFACTURE—CLOTH-DRESSING.

Occupation.	Leeds.	Remarks.
Giggers.....	\$5 56	
Do.....	4 35	
Machinists.....	5 56	
Machinists, perpetual.....	\$2 42 to 5 56	
Cloth-pressers.....	8 47	Paid by the piece.
Cloth-drawers.....	8 47	Do.
Cloth tenterers.....	6 77	Do.
Handle-setters.....	7 26	Do.
Hand-raisers.....	3 87 and 5 32	
Foremen.....	7 98 to 8 47	

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## WOOLEN MANUFACTURE—COMBING.

Occupation.	Bradford.
Mechanics.....	\$6 29
Wool-washers.....	3 87
Card-jobbers.....	4 35
Warehousemen.....	4 11
Card-hands.....	2 42
Comb-hands.....	2 54

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## WOOLEN MANUFACTURE—CARPET-MAKING.

Occupation.	Glasgow.	Kilmarnock.	Durham.	Neighborhood of Leeds.
Assistant dyers, men.....	\$4 47		\$3 87 to \$7 26	\$3 87 to \$4 35
Assistant dyers, boys.....	1 53		1 45 to 3 38	2 42 to 3 38
Hand-loom weavers and beamers, men.....	4 96	\$4 84	5 39	4 35 to 6 05
Hand-loom weavers and beamers, boys.....	1 93		3 38	2 90 to 4 35
Mechanics.....	6 29		6 29 to 7 74	
Pattern-drawers, men.....	6 05			
Pattern-drawers, boys.....	2 42			
Warehouse-workers, tenters, and sewers, men.....	5 32			
Warehouse-workers, tenters, and sewers, boys.....	1 45			
Warehouse-workers, tenters, and sewers, women.....	2 35			
Warehouse-workers, tenters, and sewers, girls.....	1 69			
Croppers, cutters, and cleaners, men.....	4 50			
Croppers, cutters, and cleaners, boys.....	1 69			
Croppers, cutters, and cleaners, women.....	2 17			
Croppers, cutters, and cleaners, girls.....	1 08			
Winders and reelers, women.....	2 17		1 53 to 1 89	2 49
Winders and reelers, girls.....	1 21	1 21		
Power-loom weavers, Brussels carpets, men.....		5 56	6 29	
Power-loom weavers, Brussels carpets, apprentices.....			4 35	
Carding and spinning, men.....			4 23 to 7 74	7 26
Carding and spinning, lads.....			96 to 2 42	2 90
Carding and spinning, females and children.....			84 to 2 42	
Carders, females.....		1 57		2 66
Spinners, females.....		1 21		

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## WORSTED MANUFACTURE—SPINNING, WEAVING, ETC.

Occupation.	Keighley.	Halifax.	Glasgow.	Bradford District.
<b>COMBING:</b>				
Wool-sorters, piece-work, average.....	\$4 96			\$6 77 to \$7 26
Wool-sorters, day work, per week.....	4 84	\$5 80		
Wool washers and driers.....	3 63	4 35		3 87 to 4 35
Gill-tenters, women.....	2 42	2 29		
Card-tenters.....	3 14			
Back-washers.....	3 14			
Comb-tenters.....	3 38	3 38		
Overlooker.....	6 77			7 74 to 8 47
<b>SPINNING:</b>				
Drawers, women.....	2 49	2 29		2 17 to 2 54
Spinners, young persons.....	2 17	1 93	\$1 81	1 81 to 2 11
Doffers and jobbers, boys.....	2 17	1 93		
Warpers, by the piece-work.....	3 38		4 35	
Reelers, women.....	2 66	2 78		2 42 to 2 90
Overlookers.....	5 56	5 80		7 26 to 7 98
Winders, women and girls.....			2 78	
<b>WEAVING:</b>				
Warp-dressers.....	3 87			
Warp-dressers.....	5 08		8 47	5 80 to 6 29
Warp loomer and twistlers, by piece.....	3 38			
Weavers, women.....	3 14	\$2 66 to 3 14	2 54	
Overlookers.....	5 56	5 80		7 50 to 8 22
Doffers and bobbin setters, half-timers.....		60		42 to 90

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## FLAX MANUFACTURE—SPINNING, WEAVING, ETC.

Occupation.	Leeds.	Yorkshire.	Manchester.	Ayrshire.	Dundee.	Kiready.	Forfarshire.
Overlookers .....	\$4 84 to \$9 68	\$4 84 to \$6 05	\$7 96 to \$9 68	.....	\$6 05 to \$8 47	.....	\$4 59 to \$5 54
War-housemen .....	3 87 to 4 35	.....	.....	.....	3 63 to 6 05	.....	.....
Roughers .....	4 84 to 6 05	.....	.....	.....	.....	.....	.....
Hacklers .....	1 21 to 1 57	.....	.....	.....	1 81 to 2 54	.....	2 05
Sorters .....	4 84 to 6 05	.....	.....	.....	.....	.....	.....
Preparers, women and girls .....	1 45 to 1 75	1 45 to 2 05	1 57 to 1 87	\$1 45	1 21 to 1 93	.....	2 05
Spinners, women and girls .....	1 51 to 1 75	1 08 to 1 81	2 05 to 2 29	1 93	1 69 to 3 14	\$1 81	2 17
Doffers .....	1 21 to 1 57	1 45 to 1 93	1 57 to 1 81	.....	.....	.....	.....
Reelers, women .....	1 93 to 2 42	1 69 to 2 66	2 90	1 81	1 93 to 3 63	.....	2 54
Makers-up .....	4 35 to 6 05	.....	.....	.....	.....	.....	4 11
Enginemmen .....	4 84 to 6 05	.....	.....	.....	.....	.....	.....
Mechanics .....	4 84 to 7 26	.....	7 26	.....	.....	.....	5 80
Dressers, men .....	.....	3 87 to 5 32	5 32	.....	4 84 to 6 05	.....	5 32
Dressers, women .....	.....	.....	.....	.....	.....	.....	.....
Dressers, boys .....	.....	1 21 to 2 90	.....	.....	.....	.....	.....
Half-timers .....	.....	24 to 48	36 to 60	.....	.....	.....	60
Carders, females .....	.....	2 05 to 2 42	.....	.....	.....	.....	.....
Combers, females .....	.....	1 93 to 2 17	.....	.....	.....	.....	.....
Bundlers .....	.....	4 35 to 4 84	.....	.....	.....	.....	.....
Tacklers, men .....	.....	.....	.....	5 44	.....	.....	.....
Winders .....	.....	.....	.....	.....	1 69 to 3 63	.....	2 54
Weavers .....	.....	.....	.....	.....	1 93 to 3 87	.....	3 38
Bleachers, females .....	.....	.....	.....	.....	.....	1 93	.....
Warpers .....	.....	.....	.....	.....	.....	.....	2 66

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## JUTE MANUFACTURE—SPINNING AND WEAVING.

Occupation.	Glasgow.	Dundee.
Workers in preparing departments .....	\$1 57 to \$1 93	.....
Spinners, coarse and fine .....	2 17 to 2 29	\$2 05 to \$2 23
Piecers, single frames and double .....	1 08 to 1 51	1 69
Shifters .....	90 to 96	1 39
Bobbin-carriers, boys .....	.....	1 08
Winders, coarse and fine .....	1 93 to 2 05	.....
Reelers .....	2 05	2 76
Warpers .....	1 93	.....
Packing department .....	3 63 to 5 32	.....
Mechanics .....	6 05 to 6 77	.....
Oilers .....	3 75	.....
Tenters .....	6 05	.....
Assistant tenters .....	4 35	.....
Weavers, girls .....	2 42 to 2 90	2 23 to 2 66
Half-timers .....	.....	48
Twisters .....	.....	2 23
Carders .....	.....	2 05
Rovers .....	.....	2 05
Drawers .....	.....	1 93
Feeders .....	.....	1 93
Bundlers .....	.....	2 66

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## SILK MANUFACTURE—THROWING RAW SILK.

Occupation.	Nottingham.	Manchester.
Men employed at spinning and throwing-mills .....		\$4 11
Boys .....	\$0 96 to \$3 87	1 09
Women and girls, doublers .....	1 81 to 2 54	2 05
Women and girls, winders of raw silk .....	2 17 to 2 66	.....
Children, drawing .....	80 to 96	48
Women, reelers .....	1 83 to 2 17	2 05
Men, overlookers .....	4 84 to 6 77	.....

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## SILK MANUFACTURE—SPINNING WASTE SILK.

Occupation.	Yorkshire.	Manchester.
Silk-bollers, men .....	\$4 35	.....
Silk-dressers, men .....	6 29	.....
Silk-preparers, girls .....	2 17	.....
Silk-spinners, girls .....	2 17	\$1 93 to \$2 42
Silk-doublers, girls .....	2 17	1 03 to 2 42
Silk-reelers, girls .....	2 17	1 93 to 2 42
Mechanics, men .....	6 29	.....
Joiners, men .....	5 08	.....
Engine-drivers, men .....	4 35	.....
Warpers, men .....	.....	5 80
Children, half-timers .....	.....	60

NOTE.—The hours of work are sixty per week; the wages, partly piece-work, partly day-work.

## BLEACHING, DYEING, AND PRINTING.

Occupation.	Manchester.	Neighborhood of Manchester.	Neighborhood of Manchester.	Kent.	Rockdale.
<b>BLEACHING, SINGING, AND STITCHING:</b>					
Foremen .....	\$8 47	\$7 26	\$8 47	.....	.....
Men .....	\$3 87 to 5 08	.....	3 87	.....	.....
Women above 18 .....	2 17 to 2 29	.....	.....	.....	.....
Girls and boys between 13 and 18 .....	1 45 to 1 93	1 69	1 33	.....	.....
Half-timers .....	1 21	.....	.....	.....	.....
<b>COLOR-MIXING:</b>					
Foremen .....	10 89	.....	.....	\$9 08 to \$14 52	.....
Men .....	4 35	.....	.....	.....	.....
Boys between 13 and 18 .....	2 42 to 3 38	.....	.....	.....	.....
<b>MACHINE-PRINTING:</b>					
Foremen .....	13 31	.....	.....	.....	.....
Printers, men .....	10 89	10 89	10 64	7 26 to 12 10	\$8 47 to \$11 37
Tenters, men .....	3 87	3 87	3 87	.....	3 87
Boys between 13 and 18 .....	1 45	\$1 21 to 1 45	1 45	1 45 to 1 93	.....
<b>HAND-PRINTING, (block):</b>					
Foremen .....	6 53	.....	.....	.....	.....
Block-printers, men .....	4 84	.....	.....	.....	6 05
Half-timers .....	72	.....	.....	.....	.....
<b>AGEING AND STEAMING:</b>					
Foremen .....	6 05	4 84 to 7 26	6 77	.....	.....
Men .....	3 87	.....	3 87	.....	.....
Girls and boys between 13 and 18 .....	2 17	1 93 to 4 35	.....	.....	.....
<b>DYEING, SOAPING, AND CLEARING:</b>					
Foremen .....	8 47 to 12 10	.....	.....	9 08 to 14 52	8 47
Dyers, men .....	4 11	4 11	.....	.....	.....
Men .....	3 87	.....	.....	.....	.....
Women above 18 .....	2 54 to 3 02	.....	.....	.....	.....
Boys between 13 and 18 .....	1 45 to 1 93	2 42	.....	.....	.....
<b>FISHING, MAKING-UP, AND PACKING:</b>					
For-men .....	7 26	7 74 to 8 22	7 26	7 26 to 12 10	.....
Calenders and starchers .....	3 87 to 4 11	4 35 to 4 84	.....	.....	.....

## BLEACHING, DYEING, AND PRINTING—Continued.

Occupation.	Manchester.	Neighborhood of Manchester.	Neighborhood of Manchester.	Kent.	Rochdale.
<b>FINISHING, ETC.—Continued.</b>					
Makers-up and packers, men	\$4 35 to \$5 08	\$4 35 to \$4 84			
Women, above 18	2 17 to 2 90	2 42 to 3 14	\$2 05		
Girls and boys, between 13 and 18	1 69 to 1 93	1 21 to 2 17	1 33		
<b>MECHANICS, SMITHS, JOINERS, ETC.:</b>					
Foremen	12 10				
Mechanics	7 26 to 7 74				
Joiners	7 74	4 59 to 7 26			
Assistants and engine-tenders	4 84				
Boys, between 13 and 18	2 42 to 2 90				
Watchmen	5 08				
Carters	4 35 to 4 84				
Book-keepers, men	7 26 to 8 95				
Book-keepers, boys between 13 and 18	1 69				
Designers				\$9 68 to \$14 52	
Engravers				7 26 to 10 89	\$7 26 to \$12 16

NOTE.—The hours of work in print-works are not necessarily restricted to 60 per week; in fact they are generally rather in excess of that number. The wages are paid partly by piece-work, partly by day-work.

## WARP AND SKEIN-PRINTING.

Occupation.	Manchester.	Remarks.
Designers	\$9 08	
Block-cutters	8 47	
Block-printers	6 29	
Warp-printers	5 51	
Warp-dressers	5 08	
Warp-dressers, between 13 and 18	2 43	
Warp-printers, between 13 and 18	3 39	
Females	2 18	
Color-mixers	7 26	
Skein-printers	6 05	Overlookers.
Skein-printers, between 13 and 18	1 94	
Skein-printers, under 13	97	
Ordinary printers	4 36	

## FUSTIAN DYEING AND FINISHING.

Occupation.	Manchester.	Remarks.
Sadners	\$5 08	
Washers	4 84	
Copperasers	3 87	
Whiskers	4 36	
Dryers	4 36	
Men	7 26	
Lads, from 13 to 15	1 69	Shearers, cutters, and machine-finishers.
Lads, from 15 to 17	2 06	Do.
Lads, from 17 to 19	2 90	Do.
Men	8 47	Hand-finishers.
Head-enders, men	5 57	Dressers.
Tail-enders, men	3 39	Do.
Men	7 26	Stiffeners.
Lads, from 17 to 19	3 39	Do.
Lads, from 15 to 17	2 06	Do.
Females	3 63	Enders and menders.

NOTE.—The hours of work in bleaching and dyeing-works must not exceed an average of 60 per week. Wages paid partly by piece-work, partly by day-work.

## DYEING.

Occupation.	Metropolis.
Skilled dyers .....	\$6 29 to \$7 26
Unskilled dyers .....	3 87 to 5 57
Bleachers .....	3 87 to 7 74
Holpressers and finishers .....	4 84 to 10 17
Boys .....	97 to 3 39
Dyers, women .....	2 18 to 3 63
Dyers, girls .....	97 to 1 94
Folders and ironers .....	2 18 to 2 90
Calico-glazers .....	8 47

NOTE.—The hours of work in bleaching and dyeing works must not exceed an average of 60 per week. Wages paid partly by piece-work, partly by day-work.

## FUSTIAN-CUTTING.

Occupation.	Manchester.
Men on piece-work .....	\$2 42 to \$4 84
Women on piece-work .....	1 45 to 2 90
Young persons .....	97 to 1 94

NOTE.—Hours of work, 60 per week; wages paid chiefly by piece-work.

## SMALL-WARE, BRAIDS, FRINGES, ETC.

Occupation.	Manchester.	Metropolis.
Silk smallware-weavers, male .....	\$4 36 to \$4 84	\$7 02
Silk smallware-weavers, female .....	3 63 to 3 87	.....
Silk smallware-winders, female .....	2 42	3 03
Plaiters, women above 18 .....	2 90	.....
Winders .....	2 42	1 69
Makers-up .....	3 69	.....
Makers-up, young persons .....	1 45	1 57
Plaiters, young persons .....	2 06	.....
Half-time .....	61	.....

NOTE.—Hours of work, 60 per week; wages paid by the week.

## BOOT AND SHOE MANUFACTURE.

Occupation.	Metropolis.	Leeds.*	Newcastle-on-Tyne.	Ipswich.	Glasgow.
Riveters, best class .....	\$7 26	\$2 90 to \$8 47	\$4 64	.....	\$6 05
Riveters, second class .....	4 84	2 90 to 8 47	.....	.....	.....
Finishers, best class .....	9 20	5 08 to 9 68	7 56	.....	6 29
Finishers, second class .....	6 05	5 08 to 9 68	.....	.....	.....
Clickers, males .....	.....	6 05	5 32	\$4 84 to \$9 68	.....
Machinists, females .....	.....	1 94 to 3 39	3 00	.....	2 42
Fitters, females .....	.....	1 69 to 2 90	2 30	.....	.....
Last-makers .....	.....	4 84 to 7 26	.....	.....	.....
Cloggers .....	.....	.....	4 40	.....	5 81
Cutters .....	.....	.....	.....	.....	.....

\* The number of hours are, for females, 54 per week, and for males, 59 per week.

## CLOTHING.

Occupation.	Metropolis.	Glasgow.	Ipswich.
Overlookers, men .....	\$10 17	10 cents per hour, 57 hours per week, but first- class hands earn more.	\$7 26
Cutters, men .....	9 20		
Basters, females, first class .....	2 30		2 90
Basters, females, inferior .....	1 47		
Machinists, females, first class .....	3 41		2 90
Machinists, females, inferior .....	2 90		
Sewers, females, first class .....	2 94		
Pressers, men, first class .....	6 61		7 26
Pressers, men, inferior .....	4 24		

NOTE.—Ordinary hours of work from 8 a. m. to 8 p. m., but the average is less than 60 per week.

## GENERAL FURNISHING.

Occupation.	Metropolis.
Dress-making .....	\$2 78
Bedding .....	4 17
Mantel-making .....	2 66
Stuffing of furniture .....	8 89
Making up of carpets, sewing .....	3 87
Polishing of furniture .....	9 68
Upholstery, women for sewing, &c .....	3 03
Making up of bonnets .....	4 36

NOTE.—Ordinary hours of work from 8 a. m. to 9 p. m., but the average is less than 60 per week.

## MANTLE-WORK.

Occupation.	Metropolis.
Machinists, sewing:	
Experienced .....	\$3 63 to \$4 36
Improvers .....	73 to 2 42
Hand-workers:	
Piece-workers .....	2 90 to 4 84
Day-workers:	
Experienced .....	2 90 to 3 63
Improvers .....	73 to 2 42

NOTE.—The ordinary hours of work from 8 a. m. to 8 p. m., but the average is less than 60 per week.

## STAY OR CORSET MAKING.

Occupation.	Metropolis.	Remarks.
Stay-cutters, men .....	\$9 68	
Stay-pressers, men .....	9 68	
Stay-machinists, females .....	3 15	
Stay needle-hands, females .....	1 94	
Stay-embroiderers, females .....	2 66	
Bonders .....	2 18	
Eyesters, boys and girls .....	1 94	
Boxers, girls .....	1 69	
Finishers and overlookers .....	1 69	
Foremen .....	4 84	
Fitters .....	3 63	

NOTE.—Ordinary hours of work from 8 a. m. to 8 p. m., but the average is less than 60 per week.

## LINEN-COLLAR MAKING.

Occupation.	Metropolis.
Men, cutters, first class .....	\$8 47 to \$9 08
Men, cutters, second class .....	7 26 to 8 47
Men, cutters, third class .....	4 84 to 7 26
Females, machine-hands, first class .....	4 36 to 4 84
Females, machine-hands, second class .....	3 63 to 4 36
Females, machine-hands, third class .....	2 18 to 3 63
Females, ironers, first class .....	4 36 to 5 39
Females, ironers, second class .....	3 63 to 4 36
Females, ironers, third class .....	2 90 to 3 63

NOTE.—Ordinary hours of work from 8 a. m. to 8 p. m., but the average is less than 60 per week.

## DRESS-MAKING.

Occupation.	Metropolis.	Remarks.
	<i>Each.</i>	
Two managers .....	\$18 55	
One dress-maker .....	7 42	With board and lodging.
Two dress-makers .....	6 53	Do.
One dress-maker .....	6 05	Do.
One dress-maker .....	2 78	Do.
One dress-maker .....	1 03	Do.
One dress-maker .....	6 53	Tea only; no lodging.
One dress-maker .....	6 05	Do.
Two dress-makers .....	5 57	Do.
One dress-maker .....	4 84	Do.
Three dress-makers .....	4 36	Do.
Three dress-makers .....	4 11	Do.
Seven dress-makers .....	3 87	Do.
Three dress-makers .....	3 51	Do.
Two dress-makers .....	3 39	Do.
Two dress-makers .....	3 14	Do.
Thirty-four dress-makers .....	2 90	Do.
Two dress-makers .....	2 68	Do.
Fourteen dress-makers .....	2 42	Do.
Five dress-makers .....	2 18	Do.
Four dress-makers .....	1 94	Do.
One dress-maker .....	1 65	Do.
Three dress-makers .....	1 45	Do.
One milliner .....	6 05	With board and lodging.
Two milliners .....	4 84	Do.
One milliner .....	3 51	Do.
Three milliners .....	2 34	Do.
One milliner .....	2 22	Do.
One milliner .....	1 85	Do.
One milliner .....	1 49	Do.
One milliner .....	1 39	Do.
Six apprentices .....	.....	Do.

NOTE.—Ordinary hours of work from 8 a. m. to 8 p. m., but the average is less than 60 per week.

## HAT AND CAP MAKING.

Occupation.	Metropolis.	Manchester.	Glasgow.
Machiners, hands .....	\$3 63	.....	.....
Clerks .....	4 84	.....	.....
Boys .....	1 31	.....	.....
Needlewomen .....	2 49	.....	\$2 54
Hat-trimmers, women and girls .....	2 30	\$2 49 to \$4 84	2 68
Fishers, men .....	\$7 26 to 9 68	7 26 to 14 52	.....
Bodymen .....	7 26 to 9 68	7 26 to 12 10	.....
Shapers, men .....	9 68 to 14 52	9 68 to 19 36	.....
Fettimers .....	.....	8 71 to 10 89	.....
Hatters .....	.....	.....	8 47

NOTE.—Hours of work 60 per week.



## FEATHER-MAKING.

Occupation.	Metropolia.	Remarks.
Men .....	\$4 84 to \$6 05	According to ability.
Men, shavers .....	7 26 to 12 10	
Women, from 18 .....	1 94 to 3 67	
Girls under 16 .....	97 to 1 60	

## MANUFACTURE OF ARTIFICIAL FLOWERS.

Occupation.	Metropolia.
Men .....	\$4 64
Boys .....	1 21
Women .....	3 30
Girls .....	97

## IRON-MANUFACTURE.

Occupation.	Middlesborough.	Neighborhood of Middlesborough.	Darlington.
<b>BLAST-FURNACE:</b>			
Keepers .....	\$12 28	\$12 28	\$12 28
Chargers .....	9 31	9 31	10 44
Slaggers .....	7 62	7 62	\$6 77 to 7 19
Mine-fellers .....	7 19	7 19	} 5 44 to 6 17
Coke-fellers .....	5 64	5 99	
Lime-fellers .....	5 64	5 64	
Enginemmen .....	8 47	\$5 06 to 9 31	.....
Welghmen .....	\$4 35 to 4 84	4 84 to 6 77	.....
Laborers .....	4 65	4 35 to 5 32	.....
Masons .....	5 08 to 6 05	4 35 to 7 96	.....
<b>PUDDLING-FORGE:</b>			
Puddlers .....	10 50	.....	10 28
Shinglers .....	13 31	.....	.....
Laborers .....	3 63 to 5 56	.....	3 39 to 4 23
Welghmen .....	4 35 to 5 80	.....	.....
<b>RAIL-MILL:</b>			
First heating .....	10 28	.....	10 69
Second heating .....	13 79	.....	14 06
Rollers .....	21 05	.....	15 73
Roughers and catchers .....	.....	.....	9 06
Roughers and catchers at blooming .....	.....	.....	9 06
Changing and pulling out .....	6 05	.....	.....
Bogeymen .....	7 26	.....	.....
Wheeling iron .....	7 17	.....	.....
Piling iron .....	6 41	.....	.....
Sawing rails .....	9 43	.....	.....
Straighteners .....	6 29	.....	5 08 to 7 26
Welghmen .....	4 84 to 6 05	.....	.....
Laborers .....	3 63 to 5 80	.....	.....
<b>PLATE-MILL:</b>			
Heaters .....	.....	.....	12 70
Loaders and general laborers .....	.....	.....	3 63 to 4 80
<b>MERCHANT-MILL:</b>			
Heaters .....	8 59	.....	.....
Rollers .....	12 10	.....	.....
Chargers .....	3 63	.....	.....
Laborers .....	3 63 to 4 59	.....	.....
Welghmen .....	6 05	.....	.....
Smiths .....	4 84 to 7 61	4 59 to 6 53	} 4 59 to 8 71
Smiths' strikers .....	4 59 to 5 08	4 35 to 4 84	
Boiler-smiths .....	4 35 to 8 22	6 77 to 7 01	
Fitters .....	4 11 to 7 01	5 80 to 6 77	7 26
Pattern-makers .....	5 80 to 6 77	} 5 08 to 6 53	6 05
Joiners .....	7 01		4 47 to 6 41
Molders .....	4 84 to 6 77	.....	6 77
Laborers .....	2 42 to 7 26	.....	.....

NOTE.—The average number of hours about 50 per week.

## IRON-MILLS.

Occupation.	Manchester.
Puddlers .....	\$8 47
Puddlers' underhands .....	4 35
Furnacemen .....	12 10
Rollers .....	12 10
Rollers' assistants .....	6 05
Rollers' boys .....	2 42
Rail and iron straighteners .....	7 26
General laborers .....	3 87

NOTE.—The number of hours about 59 per week.

## IRON-FORGING.

Occupation.	Manchester.
Forgemen .....	\$29 04
Furnacemen .....	8 70
Laborers .....	4 84
Smiths, heavy .....	33 88
Smiths, light .....	6 48
Fitters .....	6 48
Turners .....	6 77
Machinists .....	5 33

NOTE.—The number of hours about 59 per week.

## IRON-FOUNDING.

Occupation.	Manchester.
Angle-iron smiths .....	\$1 37
Boiler-makers .....	1 29
Engine-erectors .....	1 29
Engine fitters and turners .....	1 21
Millwrights .....	1 21
Iron-molders .....	1 37
Lead-molders .....	1 45
Core-makers .....	88
Laborers in foundries .....	73
Ordinary laborers .....	64
Smiths .....	1 26
Strikers for smiths .....	68
Furnacemen .....	1 05

NOTE.—Number of hours about 59 per week.

## ENGINEERING, BOILER AND AGRICULTURAL MACHINE MAKING.

Occupation.	Manchester.	Suffolk.	Essex.	Lincoln.	Glasgow.
Good engine-fitters .....	\$8 23	\$9 68			\$5 80 to \$6 53
Agricultural-fitters .....		6 05	\$5 80		
Good engine-smiths .....	7 26	10 16			5 32 to 6 77
Agricultural-smiths .....		\$6 05 to 7 26	5 80	\$6 72	5 08 to 7 26
Boiler-makers .....		10 89		6 72	
Good machinists, (i. e. woodmen) .....		9 60		6 53	
Iron and brass molders .....	7 74	8 70	6 29	6 77	
Painters .....		4 35		5 39	
Day-work laborers .....		2 20	\$3 39 to 3 63	3 63	3 63 to 3 87
Pattern-makers .....	8 70		8 95	6 77	6 29 to 7 26
Plumbers .....	7 26				
Hammermen .....	4 35		3 39		4 11

NOTE.—In Manchester the average is less than 60 hours per week. In the eastern counties the full hours are worked.

\* Per day.

## LOCOMOTIVE-ENGINE MAKING.

Occupation.	Glasgow.
Fitters and finishers .....	\$6 05
Turners, shapers, planers, and slotters .....	6 05
Drillers .....	3 87
Erectors and boiler-mounters .....	6 53
Pattern-makers .....	6 77
Iron and brass molders .....	7 00
Coppermiths .....	6 77
Grinders .....	7 50
Boiler-makers .....	6 25
Smiths .....	6 25
Forgemen .....	8 47
Laborers .....	3 63
Hammermen .....	4 11

NOTE.—The above wages are all average rates, many men being paid both higher and lower, according to ability. The hours of work average about 57 per week.

## BOLT, NUT, AND RIVET MAKING.

Occupation.	Glasgow.
Bolt-makers, good .....	\$8 77
Bolt-makers, common .....	5 80
Nut-makers, large .....	7 25
Nut-makers, small .....	6 05
Rivet-makers .....	5 80
Screwers of bolts .....	\$0 72 to 1 00
Bolt-makers' striker .....	3 63
Rivet-cutters .....	1 00
Rivet picker-out .....	1 21
Turner .....	6 77
Fitter's apprentice .....	2 17

## LOCK AND SAFE MAKING.

Occupation.	Metropolis.
First-class mechanics, known as tool-makers and engineers .....	\$10 16 to \$13 31, per 60 hours.
Good fitters .....	\$7 26 to \$21 94, per 60 hours, piece-work.
Laborers in mechanics, employed to fit up or put together what is made by machine—mere unskilled labor .....	\$4 35 to \$8 47, for 60 hours.
Boys and youths .....	\$1 45 to \$3 14
Women, employed to work automatic machines .....	\$2 17 to \$3 14, as the law allows.

NOTE BY PROPRIETORS.—Our system is exceptional to all others in this trade, by reason of the parts of the work being prepared by machinery similar to Enfield. Unfortunately, the best men only work about two-thirds time; consequently, they take only a part of what they earn. The hours of work are 60 per week.

## SHIPBUILDING AND MARINE ENGINEERING.

Occupation.	Glasgow.	Metropolis.
<b>SHIPBUILDING-YARD:</b>		
Blacksmiths .....	\$6 05	\$8 71
Angle-iron smiths .....	6 29	9 43
Hammermen .....	3 75	.....
Riveters .....	\$5 08 to 5 32	\$5 56 to 7 26
Plinters and fitters .....	5 80 to 7 01	5 80 to 9 19
Calkers .....	5 32	8 71
Helpers or laborers .....	3 38	5 08
Rivet-boys .....	1 69	1 45 to 2 17
Carpenters and boat-builders .....	6 53	8 71
Joiners .....	6 53	7 26
Blockmakers .....	5 80	8 71
Painters .....	7 32	7 26
Riggers .....	6 20	7 26

## SHIPBUILDING AND MARINE ENGINEERING—Continued.

Occupation.	Glasgow.	Metropolis.
<b>SHIPBUILDING-YARD—Continued.</b>		
Machinists .....	\$5 68	.....
Borers .....	3 93	.....
<b>ENGINE-WORKS:</b>		
Draughtsmen .....	8 22	.....
Pattern-makers .....	6 41	\$8 71
Joiners .....	6 59	7 98
Blacksmiths .....	6 53	8 71
Hammermen .....	3 87	5 32
Fitters and finishers .....	5 86	8 22
Iron-turners .....	6 05	8 71
Machinists .....	5 50	.....
Laborers .....	3 32	4 35
<b>BOILER-WORKS:</b>		
Platers and fitters .....	6 47	8 71
Riveters and calkers .....	5 44	7 26
Blacksmiths .....	6 29	.....
Hammermen .....	3 75	.....
Holders on and laborers .....	3 44	.....
Rivet-boys and blowers .....	.....	1 21

## SHEFFIELD TRADES.

Occupation.	Amount per week.
<b>IRON AND STEEL MANUFACTURE.</b>	
Head puddler .....	\$29 04 to \$48 40
Ordinary puddler .....	6 53
Lifter-up, boy .....	1 69
Foreman .....	12 10 to 14 52
Forge laborer .....	4 11 to 4 84
Armor-plate laborer .....	6 53
Pattern-maker .....	8 47
Roller, head .....	21 78 to 29 04
Roller, laborer .....	4 84
Furnacemen, laborer .....	5 80
Spring-fitters .....	14 52
Laborer to the above .....	7 26
Wire-drawers .....	9 68
Wire-cleaners .....	4 84
Rod-rollers .....	12 10 to 14 52
Sheet-rollers .....	.....
<b>EDGE-TOOL MANUFACTURE.</b>	
Forgers, double, (of which the forger receives \$10.89 and the striker \$6.05, or \$12.10 and \$4.84, respectively.) .....	16 94
Grinders, with apprentice .....	13 31
Grinder, single-handed .....	10 89
Hardeners .....	6 77
Warehouse-women .....	2 17
<b>FILE MANUFACTURE.</b>	
Forgers, double-handed, (divided in like proportion with earnings of edge-tool forgers) .....	19 36
Forgers, single-handed .....	9 68
Cutters .....	7 26
Hardeners .....	8 22
Scourers, women .....	2 42
Grinders .....	9 68
<b>CUTLERY MANUFACTURE.</b>	
<b>SPRING-KNIFE CUTLERY:</b>	
Spring-knife cutler, (average, probably, \$6.29) .....	3 63 to 8 47
Pen and pocket blade grinder .....	7 26 to 7 74
Pen and pocket blade forger .....	7 26 to 8 47
<b>TABLE-KNIFE CUTLERY:</b>	
Table-knife cutler, (average, probably, \$6.77) .....	4 84 to 9 68
Table-blade grinder .....	7 26 to 14 52
Table-blade forger .....	7 26 to 12 10
<b>RAZOR MANUFACTURE:</b>	
Razor-cutler .....	6 77
Razor-grinder .....	6 05 to 8 47
Razor-forger .....	7 26

## SHEFFIELD TRADES—Continued.

Occupation.	Amount per week.
<b>CUTLERY MANUFACTURE—Continued.</b>	
<b>SCISSORS MANUFACTURE:</b>	
Forgers .....	\$4 84 to \$7 74
Filers .....	6 05 to 8 47
Borers and finishers .....	6 05 to 8 47
Grinders, glazed .....	6 53 to 9 08
Grinders, polished-work (with a boy, a grinder will earn from \$2.90 to \$6.05 per week extra.) .....	7 26 to 11 61
Dressers, women .....	1 69 to 3 38
Burnishers, women .....	1 69 to 2 90
<b>SAW MANUFACTURE:</b>	
Saw-makers, datal .....	6 77 to 7 98
Saw-makers, piece-workers .....	6 05 to 12 10
Saw-grinders .....	9 68 to 14 38
Saw-handle makers .....	4 84 to 7 26
Scourers, women .....	2 17 to 2 90
Warehouse-women .....	2 17 to 2 90
<b>SILVER AND ELECTRO-PLATE MANUFACTURE.</b>	
Silver-smiths .....	8 47
Metal smiths .....	8 47
Stampers .....	8 71 to 9 68
Buffers, men .....	6 77
Warehouse-women .....	2 90
Warehouse-girls .....	1 45 to 1 69
Burnishers, women .....	2 90
Burnishers, girls .....	61 to 97

The above rates are taken in all cases under the condition that a full week is worked. There are in Sheffield a very large number of small masters, who live from hand to mouth, and who, perhaps, are not always able to supply work to their men during the first day or two of the week. On the other hand, there are a still larger number of operatives who decline to work, under any circumstances, on Monday, and very often on Tuesday, and who prefer the minimum of work capable of providing the bare necessities of life.

There are again some branches of the Sheffield trade so depressed, from various causes, that with the best intention a good workman can hardly get a living, after deducting from his wages his rent and wear and tear of tools.

There are thus three causes constantly in operation, especially in periods when trade is fluctuating and uncertain, which tend clearly to diminish the average rate of wages in this locality, as given in the foregoing pages.

NOTE.—The number of hours worked in Sheffield is about 58 per week.

## WIRE-WORKING.

Occupation.	Manchester.	Remarks.
Weavers .....	\$8 71	They earn \$1.69 for the first four years. The last three years they earn \$3.63 (average) and the drawers \$4.59.
Drawers .....	9 43	
Winders .....	2 17	
Stitchers .....	3 14	
Dandy-makers .....	12 10	
Engineers .....	4 11	
Mechanics .....	4 84	
Weaving apprentices .....	1 69	
Drawing apprentices .....	1 45	
Boys .....	1 06	

## COPPER-MILLS.

Occupation.	Manchester.
Laborers .....	\$4 11
Furnacemen .....	7 26
Hammer-men .....	6 05
Rolling-men .....	5 81
Tube-drawers .....	5 08
Boys over 16 years of age .....	2 42
Boys under 16 years of age (full time) .....	1 69

## COACH-BUILDING.

Occupation.	Manchester.
Body-makers .....	\$6 78 to \$9 68
Carriage-makers .....	6 78 to 8 71
Painters .....	6 78 to 8 23.
Wheeler .....	6 78 to 9 68
Smiths .....	7 26 to 9 68
Piecemen .....	5 81 to 6 29
Strikers .....	3 87
Women .....	1 94 to 2 42

The boys serve for seven years. Their wages begin at 3 shillings per week and end at 10 shillings in the last year.

## BUILDING TRADES.

Occupation.	Metropolis.	Manchester.	Bradford.
	<i>Cents per hour.</i>	<i>Cents per hour.</i>	<i>Per week.</i>
Joiners .....	16	14½	\$6 61
Masons .....	16	15	7 26
Bricklayers .....	16	.....	7 26
Plasterers .....	16	.....	.....
Laborers .....	9½	7½	4 84
Superior laborers and scaffolders .....	10½	8½	.....
Painters .....	15	14	.....
Plumbers and glaziers .....	.....	.....	6 61
Slaters .....	.....	.....	6 77

NOTE.—In the metropolis 56½ hours per week.

## CABINET-MAKING AND UPHOLSTERY.

Occupation.	Manchester.	Metropolis.
Cabinet-makers .....	\$7 74 to \$8 23	\$7 26 to \$10 89
Upholsterers .....	7 98	7 26 to 12 10
French polishers .....	6 77	7 26
Painters .....	14 cts. per hour	8 47
Gilders .....	7 26 to 7 74	7 26 to 8 47
Upholstery sewers .....	8 90	3 38
Turners .....	.....	7 26 to 10 89
Chair-makers .....	.....	7 26 to 12 10
Joiners .....	.....	9 19
Carvers .....	.....	7 26 to 12 10
Decorators .....	.....	9 19

NOTE.—Sixty hours per week.

## CLOCK-MAKING.

Occupation.	Metropolis.
Clock-makers, first class .....	\$7 26 to \$9 68
Clock-makers, second class .....	6 05 to 6 77

NOTE.—The hours of work are 58 per week.

## POTTERY.

Occupation.	Metropolia.	Manchester.	Newcastle-on-Tyne.	Edinburgh.
Hollow-ware pressers.....	\$7 26			
Printers.....	7 26		\$5 81	\$5 81
Overmen.....	6 78			
Throwers.....	8 71	\$8 47	5 81	6 65
Turners.....	6 29		6 78	
Sagger-makers.....	8 71		7 26	
Dish-makers.....	7 26			
Plate and saucer makers.....	7 26			
Laborers.....	5 08			
Transferrers, women.....	4 84		\$2 42 to 2 90	
Lathe-turners, women.....	1 94			
Warehouse women.....	4 36		1 69 to 1 94	1 45
Paintresses, women.....	2 90			\$2 42 to 3 39
Boys, full time.....		1 94		
Boys, half time.....		60		
Temperers of clay.....		3 87		
Fettlers.....		5 32		
Slip-makers.....			12 10	
Mold-runners, boys.....			97 to 1 09	
Biscuit-firers.....			10 89	4 84
Gloss-firers.....			7 50	5 81
Dippers.....			7 74	
Jar-makers, women.....			1 94 to 2 18	
Jar-makers, girls.....			1 45 to 1 69	
Jar-finishers, girls.....			1 69 to 1 94	

## BRICK-MAKING.

Occupation.	Kent.	Remarks.
Brick-molders.....	\$6 53	All brick-making operations are paid at per 1,000 bricks, so that the wages can only be averaged.
Brick sorters and loaders.....	6 05	
Barrow-men.....	\$4 36 to 5 08	
Carpenters and bricklayers.....	5 81	
Shipwrights.....	6 53	
Engineers.....	8 71	

## GLASS-MAKING.

Occupation.	Metropolia.
Founders.....	\$8 76
Sparemen, (whose duty it is to fill the crucibles).....	8 64
Kilnmen.....	8 40
Cutters.....	8 40
Cutters' assistants.....	6 24
Grinding-men.....	9 12
Grinding-boys.....	1 52
Smoothing-men.....	7 20
Smoothing-women.....	2 40
Polishing-men.....	8 40
Polishing-boys.....	2 40

NOTE.—The hours of work are about 50 per week.

## SOAP AND CANDLES.

Occupation.	Metropolia.
Copper side-men.....	\$5 76
Tallow-melters.....	5 76
Candle-pounders.....	4 80
Carmen.....	\$6 24 to 7 20
Boys.....	1 20 to 2 40

# AVERAGE EARNINGS OF OPERATIVES.

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## OIL MILLS AND REFINERY.

Occupation.	Metropolis.
Pressmen .....	\$7 20 to \$3 40
Grinders .....	4 32 to 4 80
Hoppermen .....	4 80 to 5 52
Boys .....	3 12 to 3 84
Stokers .....	5 76 to 6 72
Coopers .....	7 20 to 7 60
Carpenters .....	8 64
Yard-hands .....	5 04 to 7 20
Blacksmiths .....	7 92

NOTE. —The hours of work are 60 per week.

## RICE-MILLS.

Occupation.	Metropolis.
Millers .....	\$5 80 to \$7 26
Skilled laborers .....	5 80 to 6 29
Ordinary laborers .....	4 35 to 5 08
Youths over 18 years of age .....	7 38 to 4 11
Boys under 18 years of age .....	1 45 to 2 42

## CHEMICAL WORKS.

Occupation.	Newcastle-on-Tyne.	Manchester.
Sulphuric acid manufacture .....	\$6 53	.....
Working reverberatory furnaces .....	6 28	.....
Manufacturing chloride of lime .....	6 28	.....
Laborers .....	4 35	\$3 03
Bricklayers .....	6 29	5 92
Joiners .....	6 05	6 65
Millwrights .....	6 29	.....
Cartmen .....	4 59	4 71
Roelmen .....	6 05	.....
Coopers .....	6 05	5 80
Sawyers .....	5 32	.....
Brick-makers .....	4 84	.....
Furnacemen .....	.....	6 05
Engin @ rs .....	.....	6 29
Boiler-makers .....	.....	6 05
Blacksmiths .....	.....	5 32
Plumbers .....	.....	5 92
Masons .....	.....	7 26
Founders, (molders) .....	.....	7 13

## BREAD AND BISCUIT MANUFACTORY.

Occupation.	Glasgow.
Biscuit-baking, men .....	\$1 69 to \$7 26
Biscuit-baking, boys .....	72 to 1 45
Biscuit-baking, girls, (packing) .....	72 to 2 17
Bread-baking, men .....	2 90 to 7 74



## BREWERY.

Occupation.	Essex.
Stores, men .....	\$4 53
Stores, boys .....	1 08
Tun-rooms, men .....	4 23
Cask-washers, men .....	4 11
Cask-washers, boys .....	1 45
Stagemen .....	5 08
Hop-room men, &c .....	4 59
Watchmen .....	7 01
Stablenen .....	4 84
Dray and van-men .....	5 56
Engine-drivers .....	6 53
Carpenters and painters .....	6 29
Coopers .....	7 96
Coppersmiths .....	10 16
Millwrights, &c .....	10 16
Blacksmiths .....	9 68
Harness-maker .....	7 26
Wheelwright .....	7 74
Laborers to coppersmiths, millwrights, &c .....	4 84

In the metropolis mechanics average \$8.34 per week ; laborers average \$7.01 per week.

## PRESERVED MEATS, FRUITS, FISH, PICKLES, ETC.

Occupation.	Metropolis.
Packers, men, piece-work .....	\$7 03
Corkers, men, piece-work .....	7 50
Labellers, women, piece-work .....	60 per day.
Men, day-work .....	5 08
Boys, day-work .....	\$1 45 to 2 42
Women, day-work .....	48 per day.

## SPIRIT DISTILLING.

Occupation.	Glasgow.
Engineers .....	\$7 25
Firemen .....	4 35
Millers .....	5 32
Coopers .....	6 05
Maltmen .....	4 59
Laborers .....	\$4 11 and 3 87

## TOBACCO AND CIGARS.

Occupation.	Metropolis.	Metropolis.	Metropolis.	Edinburgh.	Glasgow.
Cutters .....	\$6 05 to \$8 47		\$6 29 to \$6 53		
Dryers or pan men .....	4 36 to 7 26				
Women-strippers .....	2 90 to 3 63	\$5 32	2 18 to 5 81		
Boy-strippers .....	1 69 to 4 84	\$2 42 to 2 90			
Spinners .....	6 05 to 8 47		7 26		\$6 05
Packers .....	3 63 to 6 05				
Machine-boys .....	1 21 to 4 36				
Cigar-makers .....		2 42 to 3 63			
Cigar-makers, best hands .....		7 26 to 9 68			
Sorters .....		6 05 to 7 26			
Snuff-makers and sifters .....			5 08 to 6 05		
Foremen .....				\$8 47	
Workmen .....				5 57	8 23
Girls feeding machines .....				1 94	
Girls preparing tobacco for machines .....				\$0 73 to 1 45	
Boys at presses .....				97 to 36	\$0 60 to 1 09
Half-timers .....					30 to 36

Hours of work variable—about 56 per week. In Boston wages vary from 48 cents to \$16.94 weekly.

## PAPER MAKING.

Occupation.	Kent.	Keighley.	Durham.	Glossop.	Manchester.
Skilled workmen .....	\$4 84 to \$6 29	\$6 05	\$4 84 to \$5 32	\$6 05	.....
Laborers .....	3 63 to 4 35	4 11	4 59	3 87	.....
Women .....	1 69 to 3 14	2 66	1 45 to 2 17	2 17	.....
Young persons .....	96 to 3 38	\$1 81 to 2 90	1 45 to 2 17	1 21	.....
Children, half-timers .....	.....	48 to 96	.....	.....	.....
Pan men .....	.....	.....	.....	.....	\$4 35
Bleachers .....	.....	.....	.....	.....	4 35
Rag-sorters, women .....	.....	.....	.....	.....	2 42
Paper-sorters, women .....	.....	.....	.....	.....	2 42
Washers off, men .....	.....	.....	.....	.....	4 35
Machine, men .....	.....	.....	.....	.....	5 80
Machine, boys .....	.....	.....	.....	.....	2 90
Rag-engineers .....	.....	.....	.....	.....	5 80

## PAPER STAINING.

Occupation.	Metropolis.	Lancashire.
Water-color printers, piece-work .....	\$4 80 to \$6 00	.....
Flock-printers, piece-work .....	7 20 to 7 92	.....
Metal-printers .....	7 20 to 7 92	.....
Boys .....	1 20	\$1 20
Paper-stainers .....	.....	2 40
Laborers .....	.....	3 84

## BOOK-BINDING.

Occupation.	Metropolis.
Finishers .....	\$9 68
Forwarder, first class .....	8 71
Forwarder, second class .....	7 74
Blocker, first class .....	7 74
Blocker, second class .....	7 26
Folders, females, piece-work, earn .....	\$2 90 to 4 84
Sewers, females, piece-work, earn .....	2 42 to 3 87
Collator, females, earn .....	2 66 to 3 39

## ENVELOPE MAKING.

Occupation.	Metropolis.
Envelope-cutters, men .....	\$6 05 to \$9 20
Envelope-cementers, women .....	2 42 to 4 84
Envelope-stampers, plain, women .....	1 81 to 3 63
Envelope-stampers, colored, women and youths .....	2 90 to 6 78
Envelope-folders, women .....	1 81 to 5 32
Envelope-machine hands, girls .....	1 21 to 3 63
Envelope, black borderers, women and girls .....	1 21 to 7 26

With few exceptions, all persons employed in this trade are paid piece-work, which renders it impossible to give more than an approximation of the wages, as so much depends upon the ability and experience of the persons employed. The hours of work are, as a rule, from 9 a. m. to 7 p. m., with intervals of one hour for dinner and half an hour for tea.

## TYPE FOUNDRY.

Occupation.	Metropolis.
Castors .....	\$6 77 to \$7 98
Rubbers .....	4 35 to 5 80
Dressers .....	7 98
Boys .....	1 21 to 2 42

NOTE.—Average about 58 hours per week.

LETTER-PRESS PRINTING.—PROVINCIAL RATES OF WAGES.

Towns.	Wages.			News piece prices per 1,000 ems.						Number of hours per week.				Overtime, per hour.		
	Jobbing.	Weekly news.	Daily news.	Weekly.			Daily.			Jobbing.	Weekly news.	Daily news.	Jobbing.	Weekly news.	Daily news.	
				Brevier.	Minion.	Nonpareil.	Brevier.	Minion.	Nonpareil.							
Barnsley.....	\$6 29	\$6 29	.....	\$0 10	\$0 12	\$0 12	.....	.....	.....	88	83	.....	\$0 12	\$0 12	.....	
Blackburn.....	6 78	6 78	.....	12	12	12	.....	.....	.....	88	84	.....	12	12	.....	
Bradford.....	6 29	6 78	.....	10	12	12	.....	.....	.....	85	83	.....	12	12	.....	
Chatterfield.....	5 81	5 81	.....	10	12	12	.....	.....	.....	88	88	.....	12	12	.....	
Derby.....	6 29	6 30	.....	10	12	12	.....	.....	.....	88	88	.....	12	12	.....	
Dewsbury.....	6 29	6 29	.....	10	11	12	.....	.....	.....	86	86	.....	12	12	.....	
Farham.....	5 81	5 81	.....	.....	10	10	.....	.....	.....	55½	55½	.....	12	12	.....	
Guildford.....	5 81	6 53	.....	12	.....	.....	.....	.....	.....	60	60	.....	.....	.....	.....	
Hallifax.....	6 53	6 53	.....	10	12	14	.....	.....	.....	87	87	.....	16	18	.....	
Hartlepool.....	5 81	5 81	.....	10	10	12	.....	.....	.....	87	87	.....	12	12	.....	
Huddersfield.....	6 29	6 53	.....	.....	.....	.....	.....	.....	.....	88	88	.....	12	12	.....	
Ilkley.....	6 29	6 53	\$7 74	10	10	12	\$0 12	\$0 14	\$0 14	84	84	.....	12	12	\$0 16	
Lewes.....	7 02	7 02	.....	12	12	12	.....	.....	.....	88	88	.....	12	12	.....	
Leeds.....	7 26	7 26	.....	12	12	12	.....	.....	.....	88	88	.....	14	16	.....	
Manchester.....	7 26	7 50	9 64	12	14	16	18	18	18	85	85	.....	14	18	20	
Newcastle-on-Tyne.....	6 78	6 78	8 47	10	10	12	.....	.....	.....	85½	85½	.....	14	16	16	
Scarborough.....	5 81	6 29	.....	10	12	12	.....	.....	.....	86	86	.....	12	12	.....	
Sheffield.....	6 78	6 78	8 00	10	12	12	12	14	14	88	88	.....	12	12	16	
Sunderland.....	6 29	6 29	.....	10	10	12	.....	.....	.....	85½	85½	.....	12	12	.....	
York.....	5 81	6 05	.....	.....	.....	.....	.....	.....	.....	83½	83½	.....	12	12	.....	

## LETTER-PRESS PRINTING.

Weekly wages.

Compositors .....	\$9 68
Pressmen .....	8 22
Machine-men .....	9 68
Boys .....	1 45

## TANNING AND CURRYING.

Occupation.	Metropolis.	Remarks.
Skinner .....	\$9 12	} Piece-work.
Shearers and finishers .....	8 88	
Curriers .....	7 92	
Examellers and jappers .....	7 68	
Glove and leather finishers and dyers .....	5 52	
Tanners .....	5 52	
Tanners' boys .....	2 64	
Jobbers .....	5 04	
Jobbers' boys .....	3 36	
Dyers .....	5 76	
Dyers' boys .....	2 88	} Day-work.
Wool-rug dressers .....	5 76	
Wool-rug dressers' boys .....	2 88	
Women employed in sewing skins .....	2 52	
Warehouse and stable men .....	5 28	
Warehouse and stable boys .....	1 92	
Mechanics employed in repairs, &c. ....	7 44	

## ROPE-MAKING.

Occupation.	Metropolis.	Manchester.
Rope-yarn hand-spinners .....	\$6 53	\$5 57
Twine-spinners, men .....	7 96	.....
Twine-spinners, boys .....	1 21	77
Machine-spinners, men .....	5 81	.....
Machine-spinners, boys .....	2 18	.....
Machine-spinners, females .....	1 69	.....
Rope-makers, (by aid of machinery,) men .....	5 32	.....
Rope-makers, (by aid of machinery,) lads 5 to 15 years .....	2 42	.....
Carmen .....	4 84	.....
Van-boys .....	1 21	.....
Warehouse-men .....	5 32	.....
Engine-driver .....	6 78	.....
Blacksmith .....	6 29	.....
Carpenter .....	5 81	.....

## REED AND HEALD MAKING, ETC.

Occupation.	Manchester.
Reed-makers, men .....	\$7 28
Reed-makers, boys, (full time) .....	1 45
Heald-knitting, women .....	2 90
Heald-knitting, girls (full time) .....	1 45

## INDIA-RUBBER MANUFACTURE.

Occupation.	Metropolis.	Manchester.
Skilled workmen, class A .....	\$9 68 to \$14 52	.....
Skilled workmen, class B .....	7 50 to 9 68	.....
Skilled workmen, class C .....	6 29 to 7 26	.....
Ordinary workmen .....	5 08 to 6 04	.....
Ordinary workmen .....	3 87 to 4 84	.....
Lads .....	2 90 to 3 38	.....
Boys .....	1 45 to 2 42	\$1 21 to \$1 69
Women .....	2 18 to 4 36	2 90 to 3 39
Girls .....	1 45 to 2 18	97 to 1 45
Threaders, male .....	.....	4 84 to 5 08
Mixers, male .....	.....	3 87 to 4 36
Vulcanizers, male .....	.....	4 11
Finishers, male .....	.....	3 87
Mechanics' hands, male .....	.....	5 08
Lathe-hands, male .....	.....	2 90 to 3 39

## LUCIFER-MATCH-MAKING.

Occupation.	Manchester.	Remarks.
Chip-box makers .....	\$0 64	Half-timers, girls.
Chip-box makers .....	2 04	Full-timers, females.
Match-box makers .....	2 46	Do.
Machine-frame fillers .....	2 62	Do.
Match-box fillers .....	1 94	Do.
Odd hands in match department .....	64	Half-timers, boys.
Odd hands in match department .....	60	Half-timers, girls.
Odd hands in match department .....	1 94	Full-timers, females.
Odd hands in match department .....	3 63	Full-timers, males.
Wax vesta and fusee makers .....	2 38	Full-timers, females.
Wax vesta and fusee makers .....	85	Half-timers, boys.
Match-cutting, boys over 13 .....	1 69	Full-timers, males.
Match-cutting, men .....	4 36	Do.
Sawyers, laborers, &c., in yard .....	4 36	Do.

NOTE.—The hours of work are 60 per week.

## FANCY-BOX-MAKING.

Occupation.	Metropolis.
Paper colorers .....	\$2 90
Cutters, piece-work .....	9 68
Scorers, boys .....	1 94
Block and case hands .....	4 36
Plain work .....	\$2 66 to 2 90

NOTE.—These are about the average wages for good hands all the year.

## CARTRIDGE-MAKING.

Occupation.	Metropolis.
Laborers, by time, from .....	\$4 36 to \$6 53
Laborers, by piece, from .....	6 78 to 9 80
Work-girls, by time, from .....	2 42 to 2 90
Work-girls, by piece, from .....	1 94 to 4 60

## BRUSH-MAKING.

Occupation.	Leeds.	Metropolis.
Pan-hands .....	\$7 26	.....
Hair-hands .....	6 05	\$8 47
Painters .....	9 68	10 89
Finishers .....	6 78	.....
Borers .....	7 26	.....
Apprentices .....	2 18	.....
Women .....	2 18	\$2 18 to 4 36
Girls .....	97	1 69
Boys .....	1 08	.....

## RATES OF WAGES IN THE UNITED KINGDOM.

AVERAGE RATES OF WAGES paid to persons employed in manufactures and trades, and the hours of labor, in various towns and their neighborhoods, in the United Kingdom in 1872. Compiled from returns communicated to the statistical department of the board of trade by the council and secretaries of the several chambers of commerce, &c.

## LINEN AND FLAX MANUFACTURE.

## BELFAST AND NEIGHBORHOOD.

Occupation.	Rates of wages— per day.	Hours of labor— per day.
<b>SPINNING :</b>		
Preparers for spinning, women.....	\$0 24 to \$0 32	10
Spinners, women.....	25 to 32	10
Reelers, women.....	*24 to 30	10
Hacklers, men.....	*60 to 84	10
Mechanics, men.....	1 21	10
Overlookers, men.....	1 45 to 1 69	10
Laborers, men.....	24 to 28	10
<b>WEAVING :</b>		
Winders, women.....	*24 to 36	10
Warpers, women.....	*30 to 42	10
Weavers, women.....	*36 to 48	10
Overseers, men.....	1 45 to 1 69	10
<b>IN BLEACH-FIELDS :</b>		
Men.....		72 10
Women.....		28 10
Lads and boys.....	16 to 28	10

## DUNDEE AND NEIGHBORHOOD.

	Per week.	
<b>SPINNING :</b>		
Preparers for spinning, women.....	\$1 45 to \$2 42	60
Preparers for spinning, lads and boys.....	1 21 to 1 93	60
Spinners, women.....	1 93 to 3 39	60
Spinners, girls.....	72 to 1 45	60
Twisters, women.....	2 05 to 2 90	60
Reelers, women.....	1 93 to 3 39	60
Reelers, girls.....	96 to 1 21	60
Hacklers, men.....	4 84	60
Hacklers, women.....	1 57 to 2 54	60
Hacklers, lads and boys.....	96 to 1 87	60
Mechanics, men.....	4 36 to 7 26	60
Warehousemen.....	3 39 to 6 05	60
Overlookers, men.....	5 75 to 8 17	60
Laborers, men.....	2 90 to 4 11	60
<b>WEAVING :</b>		
Winders, women.....	1 69 to 3 63	60
Winders, girls.....	96 to 1 21	60
Warpers, men.....	4 81 to 6 05	60
Warpers, women.....	2 18 to 3 95	60
Warpers, lads and boys.....	1 09 to 1 97	60
Weavers, women.....	1 93 to 1 87	60
Overseers, men.....	6 05 to 8 17	60
Assistant overseers, men.....	4 84 to 6 05	60
	Per day.	
<b>IN BLEACH-FIELDS :</b>		
Men.....		36 10
Women.....	*72 to 96	10
Lads and boys.....	24 to 12	10
Girls.....	*24 to 18	10
	24 to 8	10
	24 to 30	10

\* For piece-work.

## JUTE MANUFACTURE.

## DUNDEE AND NEIGHBORHOOD.

Occupation.	Rates of wages per week.	Hours of labor per week.
<b>SPINNING:</b>		
Preparers for spinning, women .....	\$2 00 to \$3 18	60
Preparers for spinning, lads and boys .....	1 27	60
Spinners, women .....	2 12 to 2 24	60
Spinners, lads and boys .....	1 39	60
Spinners, girls .....	1 39	60
Twisters, women .....	2 24	60
Reelers, women .....	2 54	00
Hacklers, men .....	3 51	60
Hacklers, lads and boys .....	1 69	60
Mechanics, men .....	5 81	57
Warehousemen .....	5 32	60
Overlookers, men .....	5 81 to 7 26	60
Laborers, men .....	4 36	60
<b>WEAVING:</b>		
Winders, women .....	2 18 to 3 39	60
Warpers, women .....	3 15	60
Beamers, men .....	3 63 to 4 84	60
Weavers, women .....	2 30 to 2 90	60
Overseers, men .....	8 47	60
Tenters, men .....	5 57	60

## WOOLEN MANUFACTURE.

## DEWSBURY AND NEIGHBORHOOD.

Occupation.	Rates of wages per week.	Hours of labor per week.
<b>PREPARING WOOLEN CLOTH, ETC:</b>		
Wool-sorters, men .....	\$6 29	59
Wool-scourers, driers, &c., men .....	4 36	59
Dyers, men .....	5 02	59
Dyers, foremen, men .....	9 62	59
Tenzers and willyers, men .....	4 60	59
Scribblers, foremen, men .....	10 89	59
Scribblers, feeders, women .....	2 90	59
Slubbers, men .....	9 68	59
Slubbers, piecers, lads and boys .....	2 18	59
Condenser-minders, women .....	2 90	59
Spinners, men .....	7 96	59
Spinners, piecers, lads and boys .....	2 18	59
Spinners, foremen, men .....	9 62	59
Warpers and beamers, men .....	5 08	59
Warpers and beamers, women .....	3 14	59
Healders, lads and boys .....	2 90	59
<b>WEAVING, ETC:</b>		
Weavers, men .....	4 84	59
Weavers, women .....	3 87	59
Weavers, lads and boys .....	3 87	59
Weavers, girls .....	2 90	59
Weavers, foremen or timers, men .....	8 47	59
Knotters and sewers, women .....	2 96	59
Buttlers, women .....	2 96	59
Millers, men .....	4 84	59
Millers, foremen, men .....	8 47	59
Manager, men .....	14 52	59
<b>DRESSING AND FINISHING WOOLEN CLOTH, ETC:</b>		
Dressers or giggers, men .....	4 84	59
Dressers or giggers, lads and boys .....	3 87	59
Tenters, men .....	5 57	59
Cutters or croppers, men .....	4 84	59
Cutters or croppers, lads and boys .....	2 42	59
Cutters or croppers, women .....	2 42	59

## WOOLEN MANUFACTURE—Continued.

## DEWSBURY AND NEIGHBORHOOD—Continued.

Occupation.	Rates of wages per week.	Hours of labor per week.
<b>DRESSING AND FINISHING WOOLEN CLOTH, ETC.—Continued.</b>		
Press-setters, men .....	\$5 32	50
Press-setters, lads and boys .....	3 67	59
Barbers, women .....	2 66	60
Drawers, men .....	9 68	60
Drawers, lads and boys .....	2 42	60
Brushers, men .....	5 32	60
Brushers, lads and boys .....	3 39	60
Enginemmen, men .....	8 47	60
Enginemmen, lads and boys .....	3 63	60
Mechanics, men .....	7 02	60
Laborers, men .....	4 84	60
Warehouse-men .....	5 32	60

## IRON AND STEEL MANUFACTURE.

## SHEFFIELD AND NEIGHBORHOOD.

Occupation.	Rates of wages per week.	Hours of labor per week.
<b>IRON-FOUNDERS, ETC.:</b>		
Iron-molders, men .....	\$7 74 to \$8 23	50 to 57½
Iron-molders, lads and boys .....	2 42	60
Joiners, men .....	5 32 to 6 78	58½ to 60
Grinders and glaziers, men .....	5 32 to 12 10	50 to 58½
Grinders and glaziers, lads and boys .....	2 42	50
Pattern-makers, men .....	7 26 to 9 68	58½ to 60
Pattern-makers, lads and boys .....	1 45	60
Pattern-makers' assistants, men .....	4 36	58½
Tiamen, men .....	6 78	58½
Blacksmiths, men .....	7 26 to 7 74	58½ to 60
Blacksmiths, lads and boys .....	1 45	60
Blacksmiths, helpers, men .....	4 00 to 5 81	58½ to 60
Engine-fitters and turners, men .....	7 26	58½
Engineers, men .....	7 26	58½ to 60
Millwrights, men .....	7 26	58½
Molders, men .....	7 74	58½
Planers, men .....	6 29	58½
Turners, men .....	7 26	58½
Screwers, men .....	4 36	58½
Hammer-men .....	8 23	58½
Strikers, men .....	4 60	58½
Borers, men .....	5 81	58½
Slotters, men .....	6 29	58½
Furnace-men in forge .....	7 26	58½
Founders, men .....	7 74	58½
Engine-men .....	4 84	58½
Drillers, men .....	5 08	58½
Carters, men .....	81 cts. per day.	58½
Laborers, men .....	4 36	57½ to 58½
<b>FILE-MAKERS:</b>		
Forgers of files, 12 inches and upward, men .....	8 71 to 9 20	48 to 56
Strikers, men .....	7 26 to 8 87	48 to 56
Forgers of files under 12 inches, men .....	6 05 to 8 47	50 to 60
Grinders, men .....	8 71 to 14 64	50 to 60
Grinders, lads and boys .....	5 32	50 to 60
Cutters, men .....	4 84 to 5 81	50 to 60
Cutters, lads and boys .....	2 96 to 3 63	50 to 60
Cutters, women .....	2 18 to 3 63	50 to 60
Cutters, girls .....	1 69 to 2 96	50 to 60
Hardeners, men .....	6 53 to 7 74	50 to 60
Hardeners, women .....	2 18	50 to 60



## IRON AND STEEL MANUFACTURE—Continued.

## SHEFFIELD AND NEIGHBORHOOD—Continued.

Occupation.	Rate of wages per week.	Hours of labor per week.
<b>HORSE-NAIL MAKERS:</b>		
Horse-nail makers (forgers) by machinery, men.....	\$5 32	58½
<b>RAZOR-MAKERS:</b>		
Strikers, men.....	5 81	48
Forgers, men.....	7 26	48
Grinders, men.....	7 26	48
Setters-in, men.....	5 08	44
Whetters, men.....	5 81	48
<b>SAW-MAKERS:</b>		
Makers, men.....	6 53	54
Grinders, men.....	8 71	54
Handle-makers, men.....	6 53	54
<b>SCISSOR-MAKERS:</b>		
Forgers, men.....	\$4 84 to 7 74	55
Grinders, men.....	6 05 to 8 71	47
Grinders, lads and boys.....	2 42 to 5 32	47
Filers, men.....	5 08 to 7 99	55
Filers, men, lads, and boys.....	2 42 to 3 63	55
Finishers, men.....	6 05 to 8 47	50
Dressers, women.....	1 69 to 3 15	50
Burnishers, women.....	1 69 to 2 90	50
<b>SPRING-KNIFE MAKERS:</b>		
Grinders, best work, men.....	7 26 to 8 71	48
Forgers, best work, men.....	7 26	48
Cutlers, best work, men.....	4 36 to 7 26	54
Scale and spring makers, best work, men.....	6 53	54
<b>TABLE-KNIFE MAKERS:</b>		
Forgers, men.....	8 71	48
Strikers, men.....	6 17	48
Grinders, men.....	5 81	48
Hafters, men.....	5 81	54
<b>STOVE-GRATE FITTERS AND FENDER-MAKERS:</b>		
Molders, men.....	8 23	50
Molders, lads and boys.....	2 90	50
Fitters, men.....	7 26	50
Fitters, lads and boys.....	2 42	50
Grinders, men.....	12 10	50
Grinders, lads and boys.....	2 90	50
<b>STEEL-MAKING:</b>		
Converter.....	7 26 to 8 47	50 to 72
Converter's laborer.....	4 60	50 to 72
Melter.....	8 23 to 94 90	50 to 72
Puller-out.....	6 78 to 8 47	50 to 72
Coker.....	4 60 to 5 33	50 to 72
Forge-man and tilter.....	8 71	50 to 72
Rod-roller.....	10 16	50 to 72
Rod furnace man.....	5 08	50 to 72
Sheet roller.....	9 68	50 to 72
Sheet-furnace man.....	7 26	50 to 72
Teemer.....	9 68	50 to 72
Pot-makers.....	9 68	50 to 72
Laborer.....	4 36	50 to 72
Boys.....	1 94 to 4 36	50 to 72

## NEWCASTLE AND NEIGHBORHOOD.

	Per ton.	Per day.
<b>PUDDLING:</b>		
Highest rate.....	\$3 15	10
Lowest rate.....	2 30	10
Average rate.....	2 60	10
<b>PLATE-ROLLING:</b>		
Rolling.....	*\$1 09 to 1 57	10
Heating.....	*67 to 97	10
Charging.....	*38	10
Shearing.....	67 to 84	10

\* Extras are paid on these prices for best qualities.

## IRON AND STEEL MANUFACTURE—Continued.

## NEWCASTLE AND NEIGHBORHOOD—Continued.

Occupation.	Rate of wages— per ton.	Hours of labor— per day.
<b>BAR-ROLLING:</b>		
Rolling .....	\$0 68 to \$1 09	10
Heating .....	50 to 93	10
Cutting down .....	32	10
<b>IRON-FOUNDERS, ETC.:</b>	Per day.	
Iron-molders .....	\$1 13	
Joiners .....	1 13	
Pattern-makers .....	1 05	
Timmen .....	93	
Blacksmiths .....	\$0 97 to 1 21	
Blacksmiths' helpers .....	68 to 73	
Engine-fitters and turners .....	97 to 1 21	
Boiler-makers .....	1 21	
Millwrights .....	1 13	
Planers .....	97 to 1 05	
Turners .....	97 to 1 21	
Screwers .....	73	
Drillers .....	80	
Apprentices .....	16 to 24	
Carters .....	80	
Laborers .....	32 to 73	

## DUNDEE AND NEIGHBORHOOD.

	Per week.	
<b>IRON-FOUNDERS, ETC.:</b>		
Iron-molders, men .....	\$7 26	57
Iron-molders, lads and boys .....	1 41	57
Joiners, men .....	5 57	57
Pattern-makers, men .....	5 81	57
Blacksmiths, men .....	5 69	57
Engine-fitters and turners, men .....	5 75	57
Engine-fitters and turners, lads and boys .....	1 59	57
Boiler-makers, men .....	5 69	57
Boiler-makers, lads and boys .....	1 94	57
Engineers, men .....	5 57	57
Engineers, lads and boys .....	2 90	57
Planers, men .....	5 44	57
Planers, lads and boys .....	1 21	57
Turners, men .....	5 93	57
Turners, lads and boys .....	1 59	57
Screwers, men .....	3 87	57
Finishers, men .....	5 44	57
Finishers, lads and boys .....	2 90	57
Hammer-men .....	3 87	57
Strikers, men .....	3 87	57
Borers, men .....	3 87	57
Slotters, men .....	5 32	57
Furnace-men .....	4 60	57
Engine-men .....	4 84	57
Carters, men .....	4 23	57
Porters, men .....	3 15	60
Laborers, men .....	3 63	57

## SHIP-BUILDING, (OF IRON.)

## NEWCASTLE AND NEIGHBORHOOD.

Occupation.	Rates of wages per day.	Hours of labor per day.
<b>SHIP-BUILDERS :</b>		
Moulders .....	\$1 21	10
Fitters .....	\$1 05 to 1 09	10
Chippers .....	73 to 81	10
Riveters .....	1 17	10
Platers .....	65 to 1 33	10
Calkers .....	97	10
Carpenters .....	1 13 to 1 17	10
Helpers .....	65 to 97	10
Smiths .....	97 to 1 17	10
Joiners and carvers .....	1 09 to 1 21	10
Painters .....	73 to 1 13	10
Drillers .....	73 to 81	10
Sawyers .....	1 09	10
Strikers .....	52 to 77	10
Boys .....	24 to 40	10
Laborers .....	60 to 73	10

## BELFAST AND NEIGHBORHOOD.

<b>SHIP-BUILDERS, (IRON :</b>		
Ship-smiths .....	\$0 97 to \$1 09	10
Strikers or helpers .....	56	10
Sawyers .....	97	10
Joiners .....	1 09	10
Ship-carpenters .....	1 13	10
Laborers .....	52	10
Platers and boiler-makers .....	1 09	10
Angle-iron smiths .....	1 09	10
Riveters .....	1 01	10
Holders-up .....	65	10

## DUNDEE AND NEIGHBORHOOD.

	Per week.	
IRON-SHIP BUILDERS :		
Molders.....	\$7 26	57
Builders.....	6 78	57
Filters.....	6 78	57
Chippers.....	5 68	52½
Riveters.....	6 05	52½
Platers.....	\$6 53 to 7 02	52½
Calkers.....	5 81 to 6 29	52½
Carpenters.....	5 81	52½
Helpers.....	3 87	52½
Boiler-makers.....	7 26	57
Smiths.....	6 78	57
Engineers.....	6 78	57
Joiners and carvers.....	6 29	57
Painters.....	6 78	52½
Drillers.....	4 36	52½
Sawyers.....	6 29	52½
Strikers.....	3 87	52½
Boys.....	1 45	52½
Laborers.....	3 87	52½

## ROPE AND SAIL MAKING.

## BELFAST AND NEIGHBORHOOD.

Occupation.	Rates of wages per week.	Hours of labor per week.
<b>ROPE AND TWINE SPINNERS:</b>		
Rope-yarn spinners, men.....	\$4 36	59
Rope-yarn spinners, lads, and boys .....	\$1 69 to 2 42	59
Twine-spinners, men .....	4 36	59
Twine-spinners, lads, and boys .....	73 to 1 94	59
<b>ROPE, SAIL, AND SAIL-CLOTH MAKERS:</b>		
Rope-makers, men.....	4 36 to 6 05	59
Rope-makers, lads, and boys.....	97 to 2 42	59
Sail-makers, men.....	6 53 to 7 74	59
Sail-makers, lads, and boys.....	97 to 2 42	59

## EARTHENWARE AND PORCELAIN MANUFACTURE.

## WORCESTER AND NEIGHBORHOOD.

Occupation.	Rates of wages per week.	Hours of labor per day.
<b>PORCELAIN:</b>		
Clay-makers, men.....	\$5 81	11
Throwers, men.....	9 68	11
Throwers, lads and boys .....	3 39	11
Turners, men .....	9 68	11
Turners, lads and boys .....	1 81	11
Handlers, men .....	7 26	11
Pressers, men .....	\$7 26 to 9 68	11
Figure-makers, men .....	7 26 to 12 10	11
Figure-makers, lads and boys.....	2 42	11
Modelers, men .....	9 68 to 15 24	11
Molders, men .....	7 26 to 8 71	11
Saggars-makers, men .....	7 26	11
Biscuit-firer men, men .....	9 68	11
Biscuit-placers, men .....	4 35 to 4 84	11
Glost-firer men, men .....	10 16	11
Glost-placers, men .....	6 05	11
Kiln-firer men, men .....	6 05	11
Painters, men .....	7 26 to 19 36	11
Gilders, men .....	6 05 to 8 71	11
Enamellers, women .....	2 42 to 3 39	11
Enamellers, girls .....	48 to 1 21	11
Burnishers, women .....	1 93 to 2 90	11
Burnishers, girls .....	48 to 1 21	11
Warehousemen .....	4 84 to 7 26	11
Engravers, men .....	6 05 to 9 68	11
Apprentices .....	Not stated.....	11
Office heads and attendants.....	{ 193 60 to 726 00 per annum. }	11

## NEWCASTLE AND NEIGHBORHOOD.

	Per day.	
<b>EARTHENWARE :</b>		
Clay-makers, men.....	*\$1 45	10†
Clay-makers, women.....	48	10†
Throwers, men.....	*1 21	10†
Turners, men.....	97	10†
Handlers, men.....	*1 45	10†
Pressers, men.....	*1 21	10†
Molders, men.....	*1 69	10
Saggur-makers, men.....	*1 21	10†
Biscuit-firer men.....	†1 94	8
Biscuit-placers, men.....	*97	10

\* Rates paid for piece-work.

† Rates paid for day-work.

## EARTHENWARE AND PORCELAIN MANUFACTURE—Continued.

## NEWCASTLE AND NEIGHBORHOOD—Continued.

Occupation.	Rate of wages per day.	Hours of labor per day.
<b>EARTHENWARE—Continued.</b>		
Printers, men .....	\$1 09	10½
Printers' transferrers, men .....	*48	10½
Glost-firemen, men .....	†1 21	8
Glost-placers, men .....	*97	10
Enamellers, men .....	*1 94	10
Enamellers, girls .....	*24	10
Kiln-men, men .....	*97	10
Warehousemen, men .....	†97	10½
Warehousemen, women .....	†36	10½
Warehousemen, girls .....	†20	10½
Painters, women .....	*73	8
Painters, girls .....	*24	10
Burnishers, women .....	*60	9
Laborers, men .....	81	10½
Laborers, women .....	36	10½
Laborers, lads and boys .....	20	10½
Laborers, girls .....	20	10½
Gilders, men .....	*1 94	10½
Potters, men .....	*1 21	10½

## CHEMICAL MANUFACTURES.

## NEWCASTLE AND NEIGHBORHOOD.

Occupation.	Rate of wages per day.	Hours of labor per day.
<b>CHEMICAL WORKS:</b>		
Foremen .....	\$1 41	10
Time-keepers and weighers, men .....	81	10
Enginemakers and brakesmen, men .....	93	10
Firemen, boiler-men, &c., men .....	89	10
Sulphuric-acid makers, men .....	1 09	10
Sulphate of soda makers, men .....	1 17	10
Sulphate of soda makers, lads and boys .....	36	10
Crude-soda makers, men .....	1 09	10
Caustic-soda makers, men .....	1 09	10
Caustic-soda makers, lads and boys .....	36	10
Carbonate of soda makers, men .....	1 13	10
Crystals of soda makers, men .....	89	10
Bi-carbonate of soda makers, men .....	89	10
Bleaching-powder makers, men .....	1 25	10
Fire-brick makers, men .....	97	10
Fire-brick makers, lads and boys .....	48	10
Common-brick makers, men .....	81	10
Common-brick makers, lads and boys .....	48	10
Tile-makers, men .....	85	10
Blacksmiths, men .....	1 09	10
Blacksmiths, lads and boys .....	36	10
Millwrights, men .....	1 13	10
Millwrights, lads and boys .....	36	10
Joiners, men .....	1 09	10
Joiners, lads and boys .....	36	10
Plumbers, men .....	1 21	10
Plumbers, lads and boys .....	36	10
Bricklayers, men .....	1 13	10
Bricklayers, lads and boys .....	36	10
Masons, men .....	1 21	10
Laborers, men .....	73	10
Cartmen, men .....	81	10
Keelmen, men .....	13	10
Saw-mill men .....	1 09	10
Coopers, men .....	1 21	10
Coopers, lads and boys .....	73	10

\* Rates paid for piece-work.

† Rates paid for day-work.

## BOOT AND SHOE MAKING.

## NEWCASTLE AND NEIGHBORHOOD.

Occupation.	Rates of wages per week.	Hours of labor per day.
<b>BOOT AND SHOE MAKERS:</b>		
Foremen, men .....	\$8 47	9½
Cutters, men .....	5 81	9½
Hand-sewn workers, men .....	5 08	9½
Riveters, men .....	6 05	9½
Finishers, men .....	7 74	12
Fitters, women .....	2 90	9½
Machinists, women .....	3 39	9½
Apprentices, lads and boys .....	1 21	9½
Apprentices, girls .....	1 21	9½

## BELFAST AND NEIGHBORHOOD.

	Per day.	
<b>BOOT AND SHOE MAKERS:</b>		
Closers, men .....	\$0 70	Various
Closers, women .....	\$0 36 to 48	Do.
Bootmen, men .....	97 to 1 21	Do.
Shoemen, men .....	97 to 1 21	Do.
Ladies'-men, men .....	97 to 1 21	Do.
Jobbers, men .....	97 to 1 21	Do.
Binders, men .....	97 to 1 21	Do.
Makers, men .....	97 to 1 21	Do.

## BREWING.

## NEWCASTLE AND NEIGHBORHOOD.

Occupation.	Rates of wages per week.	Hours of labor per day.
<b>BREWERS:</b>		
Mash-house men and others .....	\$5 08	12
Uppermen .....	12 10	12
Upper cellarmen .....	6 53	12
Malt-house men .....	5 08	12
Upper draymen .....	7 26	12
Under draymen .....	5 08	12
Coopers .....	6 53	12
Carpenters .....	6 77	12
Smiths .....	6 77	12
Laborers .....	3 63	12

## BELFAST AND NEIGHBORHOOD.

	Per week.	
<b>BREWERS:</b>		
Mash-house men .....	\$3 39	72
Uppermen .....	3 39	72
Upper draymen .....	\$3 87 to 4 84	72
Coopers .....	*4 84 to 7 26	72
Carpenters .....	7 26	72
Laborers .....	2 90	72

\* Rates paid for piece-work.

## BUILDING TRADES.

## BELFAST AND NEIGHBORHOOD.

Occupation.	Rates of wages per day.	Hours of labor per day.
<b>BUILDING TRADES:</b>		
Foremen .....	\$1 33 to \$2 42	10
Masons .....	1 21	10
Masons' laborers .....	60	10
Bricklayers .....	1 21	10
Bricklayers' laborers .....	60	10
Joiners .....	1 21	10
House carpenters .....	1 21	10
Plasterers .....	1 21	10
Plasterers' laborers .....	60	10
Stone-cutters .....	1 21	10
Slaters .....	1 21	10
Painters .....	1 21	10
Plumbers .....	1 21	10
Common laborers .....	48	10

## GAS-WORKS.

## BELFAST AND NEIGHBORHOOD.

Occupation.	Rates of wages per day.	Hours of labor per day.
<b>GAS-WORKS:</b>		
Gas-makers .....	\$0 85 to \$1 09	10
Stokers .....	85 to 1 09	10
Retort-men .....	85 to 1 09	10
Engineers .....	1 01	10
Joiners .....	1 05	10
Bricklayers .....	1 13	10
Smiths .....	1 13	10
Pipe-layers .....	60	10
Lamp-lighters .....	60 to 66	10
Laborers .....	48	10

## NEWCASTLE AND NEIGHBORHOOD.

	Rates of wages per week.	Hours per day.
<b>GAS-WORKS:</b>		
Gas-makers .....	\$8 23	12
Stokers .....	8 23	12
Retort-men .....	8 23	12
Engine-men .....	7 74	12
Joiners .....	6 53	10
Bricklayers .....	7 26	10
Smiths .....	6 29	10
Pipe-layers .....	5 81	10
Gas-fitters .....	6 29	10
Lamp-lighters .....	3 87	-----
Laborers .....	4 36	-----

## HAT-MAKING.

## BELFAST AND NEIGHBORHOOD.

Occupation.	Rates of wages per day.	Hours of labor per day.
<b>HATTERS, SILK:</b>		
Body-makers, men .....	\$1 21	Various.
Silk-finishers, men .....	1 21	Do.
Tipplers off, men .....	\$1 21 to 2 02	Do.
<b>HATTERS, FELT:</b>		
Body-makers, men .....	97 to 1 21	Do.
Proofers, men .....	1 21	Do.
Blockers, men .....	97	Do.
Dyers, men .....	97	Do.
Finishers, men .....	1 45	Do.
Crown-sowers, women .....	60	Do.
Trimmers, women .....	24 to 32	Do.
Cap-makers, women .....	20 to 24	Do.

## LEATHER MANUFACTURE.

## BELFAST AND NEIGHBORHOOD.

Occupation.	Rates of wages per week.	Hours of labor per week.
<b>Tanners</b> .....	\$3 00	60
<b>Carriers</b> .....	Paid by piece.	.....
<b>Beam-men and shed-men</b> .....	3 63	60
<b>Strap-makers</b> .....	3 63	60
<b>Laborers</b> .....	\$2 42 to 2 66	60

## NEWCASTLE AND NEIGHBORHOOD.

Occupation.	Per week.	* Per day.
<b>Tanners, men</b> .....	\$5 08	10
<b>Tanners, lads and boys</b> .....	1 45	10
<b>Beam-men, men</b> .....	6 05	11
<b>Beam-men, lads and boys</b> .....	2 18	10
<b>Shed-men, men</b> .....	6 17	11
<b>Shed-men, lads and boys</b> .....	2 18	10
<b>Laborers</b> .....	4 36	10

\* For every day except Saturday, when the hours of labor are 6½.



## SOAP-BOILING.

## BELFAST AND NEIGHBORHOOD.

Occupation.	Rates of wages per week.	Hours of labor per week.
Soap-boilers .....	\$5 08	
Assistant soap-boilers .....	\$2 90 to 3 14	
Foremen .....	5 08	
Carters .....	3 14	
Laborers .....	2 90	

## NEWCASTLE AND NEIGHBORHOOD.

Soap-boilers .....	per annum (£212)	*\$1,055 12	69
Assistant soap-boilers .....		5 81	69
Vat-men .....		4 60	69
Foremen .....		5 81	69
Engine-drivers .....		6 77	69
Joiners, one man, two lads and boys .....		†\$9 68 to 12 10	69
Foremen joiners .....		6 29	69
Carters .....		5 08	69
Warehousemen .....		4 60 to 5 32	69
Laborers, men .....		4 36	69
Laborers, lads and boys .....		2 18 to 3 87	69
Watchmen .....		4 84	69

\* Per annum. † For the three.

## SEAMEN'S WAGES.

## PORT OF HULL.

Occupation.	Rates of wages per month.
Masters .....	\$58 08 to \$121 00
First mate .....	38 72 to 48 40
Second mate .....	33 88
First engineers .....	53 24 to 87 12
Second engineers .....	33 88 to 58 08
Stokers .....	16 94 to 24 20
A. B. seamen .....	14 52 to 24 20
Ordinary seamen .....	9 68 to 24 20
Boys .....	17 42

## PORT OF DUNDEE.

Masters .....	\$48 40 to \$96 80
First mate .....	24 20 to 38 72
Second mate .....	14 52 to 29 04
First engineers .....	Per week. \$13 31
Second engineers .....	8 47
Stokers .....	6 29
A. B. seamen .....	Per month. \$14 52 to \$16 94
Ordinary seamen .....	2 42 to 12 10

## WAGES IN IRON-MILLS.

Before proceeding to investigate the rates of wages in the iron manufacture of Great Britain in July, 1872, the author had several interviews with Walter Williams, esq., who supplied him with letters to the most distinguished iron-masters of England and Wales. In subsequent interviews both in England and the United States, and by frequent correspondence, Mr. Williams has afforded information of great value, especially in regard to the cost of labor in the Cleveland, the South Staffordshire, and the Welsh iron-mills. Finding that the prices of labor in iron-mills then and subsequently prevailing were by no means established—the mutations from the standard of 1871 being nearly as frequent as those of the mercury in the thermometer, or the price of stocks on 'change—the author postponed from time to time the compilation of the data he had at command, until the present period, in order to furnish the latest schedule agreed upon by masters and men. It is probable, however, that before the figures in the following tables meet the eyes of readers, such other changes may occur as to render them then inaccurate, and they may, therefore, fail to fully represent the actual earnings of mill-operatives at that later period.

## STANDARD WAGES.

To show a few of the changes that have occurred in the wages of mill-hands, it may be stated that the standard wages in the north of England iron-trade which were adopted and printed in 1871, underwent an addition of 6d. per ton on puddling prices, and 5 per cent. on other wages was made in October, 1871; a further addition of similar amount in April, 1872, and still further additions in 1872, making a total advance of 20 per cent. from standard rates. In some parts of England, such as South Staffordshire, the aggregate advance amounted to 30 per cent. on the fixed rates. Having reached the maximum the wages gradually declined, until, in October, 1874, they were established at an advance of 12 per cent. on the standard prices of 1871, which are given in the tables on the following pages. The price for puddling, which in 1871 was 9s. 6d., has, after various changes, been fixed at 10s. 9d. (\$2.60 United States gold) per ton.

Under date of Stafford, October 25, 1874, Mr. Williams writes:

I send you a printed list with all particulars at the standard rates. To these add 12 per cent. These rates represent not only the north, but Staffordshire and all the mid-land counties and Scotland. Wales is 25 per cent. to 27½ per cent. lower. Blast-furnacemen's wages would not be covered by a rate of 5s. 6d. to 6s. per ton on common iron, and 8s. to 9s. per ton, 2,240 pounds, on best iron and cold blast.

## Advices from Wolverhampton state:

At a meeting of representative iron-masters and iron-workers held at this place October 2, 1874, a new rate of wages to be paid to the workers of finished iron was adopted. Puddlers are now paid 10s. 9d. per ton, and mill-men's wages in like proportion. This rate is based upon the average net selling prices, during the past quarter, of finished iron in the north of England, and of the bars sold by twelve selected firms in South Staffordshire. The reduction in puddlers' wages is 1s. per ton, and in mill-men's wages 10 per cent. This settles the wages question in England for another quarter. The reduction has been cheerfully submitted to by the men, and has afforded satisfaction to the employers. The former looked for a fall in wages of 12½ per cent., and even 15½ per cent. was not thought too much, while the latter were scarcely prepared for more than 7½ per cent.

## NORTH OF ENGLAND IRON-TRADE.

Standard wages in September, 1871.

## PUDDLING-MILLS.

Description of work.	Bolckow, Vaughan & Co., Wilton Park.	Hopkins, Gilkes & Co.	Darlington Iron Company.	Stockton Malleable-Iron Com- pany.
<b>Puddling—</b>				
Gray pig .....	9s. 6d. per ton.	9s. 6d. per ton.	9s. 6d. per ton.	9s. 6d. per ton.
Mottled pig .....	8s. 4d. per ton.	8s. 6d. per ton.	8s. 6d. per ton.	8s. 6d. per ton.
White .....	8s. 6d. per ton.	8s. 6d. per ton.	8s. 6d. per ton.	8s. 6d. per ton.
Gray, mottled, and white, mixed. (castings) .....	9s. 6d. per ton.	9s. 6d. per ton.	9s. 6d. per ton.	10s. per ton.
Welding and wheeling metal to pud- dles .....	4s. 2d. and 4s. 6d. per day.	9d. on puddled iron; unloading, 9d. on pig-iron.	2½d. puddled bar; 1½d. pig-iron, unloading and breaking.	3d. per ton, including breaking.
Underhands' wages .....	2s. 6d. to 3s. 1d. per shift; 3d. per shift for full heats, paid by the company.	3s. 6d. per shift.	3s. 6d. per shift.	3s. 2d. and 3s. 4d. per shift.
Allowance for working level-band.	6d. per shift.	6d. each, full heats.	6d. per shift.	6d. per shift of full heats.
Terms of arrangement with masons for repairing furnaces.	Contract, 5d. per ton.	3 5-16d. per ton, labor only.	Puddling-furnaces, ¼d. per ton; ball-furnaces, 1½d. per ton.	Masons, 5s., and laborers, 9s. 9d. per day.
Puddlers paid for balls made from scraps for fettling.	4s. 9d. per ton.	4s. 9d. per ton.	5s. per ton.	Same as puddled iron on weight rolled.
Scrap-balling on wood or other bottoms.	2s. 6-97d. per ton.	2s. 7½d. per ton.	2s. 7½d. per ton.	2s. 10½d. per ton.
Heating cold blooms for slabs, &c.	1s. 8-73d. per ton, firm-charge and bogey.	1s. 8-73d. per ton.	1s. 5d. made by stoppages.	2s. 1½d. per ton.
Reheating puddled-blooms for rail- tops, &c.	1s. 2-7d.	1s. 18d., firm finding help; 1s. 3-95d. when two high.	Doubled lumps, 1s. 1½d.	2s. 3½d. per ton; no assistance found.
Assistance given by firm in ball-fur- nacing, &c.	Firm pay chargers and pullers. out at 3s. 2d. per day.	Firm find chargers and bogey- men at 3s. 5d. for reheating.	All chargers and bogeymen at reheating and scrap furnaces; chargers, 3s. 6d., and bogey- men, 3s. 6d. per shift.	One at 3s. 8d. and one at 1s. 1d.
Help found by furnaceman on preced- ing, and wages of each man.	Heater finds one boy at 1s., and pives when balling scrap.	Underhand for scrap-furnaces; boy at reheating furnaces.	One boy, 1s. per day at reheating and ball furnaces.	One at 3s. 8d. and one at 1s. 1d.
Hammering puddled balls—				
Singles .....	9-18d. per ton.	9-2d. per ton.	9½d. per ton.	10½d. per ton.
Trobbles .....	11-55d. per ton.	11-5d. per ton.	1s. 1½d. per ton.	1s. 1½d. per ton.
Trobbles and fours .....	1s. 1-86d. per ton.	1s. 1-86d. per ton.	1s. 1½d. per ton.	1s. 1½d. per ton.
Hammering—				
Rail-furnace piles .....	9-18d. per ton.	9-2d. per ton.	9½d. per ton.	10½d. per ton.
Rail-tops or slabs .....	6-50d. per ton.	6-6d. per ton.	6½d. per ton.	1s. 1½d. per ton.
Assistance given by the firm in bogey- ing or otherwise.	All bogeymen from hammers at 3s. 2d., and one helper when doubling, at 3s. 2d.	All bogeymen, excepting from scrap-furnaces.	All bogeying to furnaces and rolls, 3s. 6d. per shift.	One boy at each hammer, at 2s. or 1s. 1½d. per day.
Rolling—				
Ordinary puddled bars .....	9-8d. per ton.	9-2d. per ton.	Time, 5s. 9d. per day underhands; forehands, 1 each shift, 8s. 6d. per shift.	10½d. per ton.

Ordinary scrap bars.....	9.9d. per ton	9.9d. per ton	Time, 5s. 6d. per day	10d. per ton.
Iron puddled bars.....	9.9d. per ton	9.9d. per ton	Time, 5s. 6d. per day	10d. per ton.
Steel scrap bars.....	12. 1.6d. and squares.....	Not done in forge	Time, 5s. 6d. per day	10d. per ton.
Do rollers find all labor and assistance at rolls?	Firm find and buy, at 1s. 6d., when rolling 14-inch slabs	Rollers find all labor and assistance at rolls.	Time-work.....	Rollers find all labor and assistance at rolls.
Drugging out and straightening.....	3s. 9d., 3s., and 2s. 10d. per day	3d. per ton.	Time, 3s. 10d. per day	One at 3s. 6d. and 3 at 3s. 8d. per day.
Weighting puddled and scrap bars.....	4s., 3s. 11d., and 4s. 2d. per day for weighmen.	4d.; and 5d. including loading.	Stock-takers are paid 24s. and 22s. per week, standing wages; lifting, 3d. pud. bars, 3d. slabs.	One man at 4s. 10d., 4 men at 4s. 9d., and 4 men at 4s. 4d.
Are puddled bars weighed before or after rolling? If before, what deduction is made for waste?	Before; 8 pounds per cwt. deducted.	Before; 30 pounds per heat deducted.	Before; 25 pounds per heat deducted.	After.
Wages paid in connection with the puddling which are not included in the above.	Slugging forges, 3s. 10d., 3s. 11d., 4s. 3d., 4s. 4d., 3s. 8d., and 3s. 2d.; hot shearing, 3s. 8d., 3s. 7d., 3s. 2d., and 3s.; filling at shears, 3s. 2d., 2s. 10d., 3s. 7d., and 3s.; bogging from shears, 3s. 4d.; 3s. 7d., and 3s.; general laborers, 3s., 2s. 8d., 2s. 6d., 2s., and 1s. 3d.; ash-filling, 11d. per ton, long weight.			
Coal and ash wheeling.....	Casting coals, 4s. 7d. and 4s. 4d.	7d., and loading ashes.....	Time-work.....	4s. 1d., 3s. 11d., and 2s. 7d.; ashes, 3s. 11d.
Tap-wheeling.....	3s. 1d.			
Repairing puddlers' tools.....	4s. 4d., 3s. 11d., 3s. 1d., and 2s. 11d.	3s. 8d. to 4s.	Time, 4s. 4d. and 3s. 6d. per shift.	3s. 8d. and 2s. 9d.

## BAR AND ANGLE MILLS, 18-INCH.

Description of work.	Bolckow, Vaughan & Co., Middlesbrough.	Palmer's Ship-Building and Iron Company.	Darlington Iron Company.	J. Abbott & Co.
First heating— Angles, T-iron, and flats.....	Angles and bar-iron, (piles 50 pounds and above,) 1s. 11.75d per ton. do..... do..... 2s., 4.35d. per ton; includes all flats below 50 pounds. 2s. 7.18d. per ton; includes all flats below 50 pounds. 4 and 11-16 inch., 2s. 10d.; includes all flats below 50 pounds. 1s. 11d. per ton; piles above 50 pounds.	Heating angles, all sizes rolled in the mill down to 14 by 14 inch, and rounds and squares down to and including 6-inch, and flats to 2 inches wide, 1s. 9.3d. and 15 per cent. Angles 14 by 14 inch and under, flats under 2 inches, and rounds and squares under 1 inch, 2s. 4.5d. and 15 per cent. Reheating, any size necessary, 3s. 4d. less 5 per cent., including first heating.	Flats above 1 inch, 2s.; flats 1-inch and under, 2s. 4d. 2s. 4d. 2s. 4d. 2s. 4d. 2s. 4d. 2s. 4d. 2s. 4d.	Angles and T-iron, 2 inch and above; rounds and squares, 1 to 18 inch, and flats, 5 to 7 inch, 2s. 2.4d. Bolts and squares under 1 inch; flats, angles, and T-iron under 3 inch, 2s. 6.8d. 2s. 2.4d.

*Standard wages in September, 1871—Continued.*  
**BAR AND ANGLE MILLS, 19-INCH—Continued.**

Description of work	Bolckow, Vaughn & Co., Mid- dleborough.	Palmer's Ship-Building and Iron Company.	Darlington Iron Company.	J. A. Abbott & Co.
Bogeying to rollers. Assistants paid by furnacemen, and wages of each.	2s. 11. per day. Lighting up at 1s. per fortnight.	3s.	2s. 6d. per shift. 1 boy at 1s. per shift.	Done by furnacemen. One boy each.
Assistants paid by firm in heating, and wages of each.	When working piles above 100 pounds, 2 chargers at 3s. 6d. and 1 puller-out at 2s. 6d.	Door-drawer at 1s.; when pile exceeds 200 pounds, firm pays two chargers at 3s. per shift.	Bogey boys and help to charge above 200 pounds.	Above prices include delivering to rolls.
Rolling off— Angles, T-iron, and flats.	Angles and bar-iron, (piles 50 pounds and above,) 2s. 2.13d. per ton.	Angle-iron, all sizes rolled in mill down to 1½ by 1½ inch, and rounds and squares down to and including 1-inch, and flats down to and including 2-inch, 2s. 3.1-5d. and 15 per cent. Angles, 1½ by 1½ inch and under, flats under 2-inch, and rounds and squares un- der 1-inch, 3s. 4d. and 15 per cent.	{ 11½d 11½d 1s. 1½d 1s. 1½d 1s. 1½d 11½d	{ Angles and T-iron, 2-inch and above; rounds and squares, 1 to 1½ inch, and flats, 2 to 3½ inch, 2s. 11.2d. Bolts and squares under 1-inch; flats, angles, and T-iron, under 2- inch, 3s. 10.2d. 2s. 11.8d.
Rounds and squares { 1½ to 3 inch. ¾ and 15-16 inch. ¾ and 13-16 in. ¾ and 11-16 in.	3s. 1.8d. per ton; includes all flats below 50 pounds. 3s. 9.35d. 4s. 3d. 2s. 8.13d per ton; piles 50 pounds and above.	Roller pays all help at rolls	All labor at rolls.	All labor at rolls.
Fish-plates, tram-plates, edge and bridge rails, and contractors' rails.	{ For piles 50 pounds and above: rougher, 7.46d. per ton; catch- er, 6.6d. per ton; hooker-up roughing, 1s. 3d; hooker-up finishing, 1s.; catching at finishing, 9s. 1d.; 3 boys on plate, 1s. each, all per day. Boy on plate-straightening at 1s. 4d. per day. 11.34d. per ton	{ 4s. 4.5d. and 15 per cent. includ- ing first heading. Two boys on each shift on plate at 1s. 3d. 1s. and 10 per cent., and 9d. per ton on make for removing scrap.	{ Bogeying to rolls, 2s. 6d.; catch- ing at finishing, 3s.; hooking up, 2s. 6d.; per shift. 10½d.	{ 3s. 8d. 1s. 2½d.
Assistants paid by roller, and wages of each man.	Paid by roller, except boy, at 1s. 4d., as above.	Dragging out and hot-straight- ening and sawing, 1 at 4s.; 1 at 3s. 8d.; lad at 1s. Sawing, 3 at 1s. each. 8d. and 10 per cent.	Done by rollers.	Done by rollers.
Rolling re-heated iron—angles, &c.	4s. and 2s. 6d. per day.	do	Time, at 3s. 6d., and 4s. per shift.	Time, 3s. 8d.
Labor or assistance given by firm, and wages of each man.	do	do	Time, at 3s. per day	1s.
Cutting down, wheeling, and piling.	do	do	Time	Do.
Dragging out and hot-straightening.	do	do	Time	Do.
Sawing.	do	do	Time	Do.
Cropping.	do	do	Time	Do.
Weighing.	do	do	Time	Do.
Loading.	do	do	Time	Do.

## BAR AND ANGLE MILLS, 16-INCH.

Description of work.	Bolckow, Vaughan & Co., Middlesbrough.	Fry, Ianson & Co.	Hopper, Radcliffe & Co.	John Abbott & Co.
First heating—Angles.....	.....	2 by 3 to 34 by 34 ordinary piles, 1s. 84d. and 15 per cent.	Above 50-pound pile, 1s. 11d. per ton; box-piles, 2s. 3d.	Ordinary sizes below 34 rounds and squares, angles above 2 to 74-inch, 2s. 3d.; box-piles, 3s. 57d.; bolts and squares, above 34, 3s. 69d.; bolts 14 and below, 2s. 57d.
Angles.....	.....	2 by 3 to 34 by 34 box piles, 1s. 114d. and 15 per cent.	.....do.....	.....do.....
T-iron.....	.....	All sizes 1 to 34-inch 1s. 84d. and 15 per cent.	.....do.....	.....do.....
Beams.....	.....	.....do.....	.....do.....	.....do.....
Flats.....	Common sizes 1s. 1175d. per ton	.....do.....	.....do.....	2s. 34d. per ton.
Rounds and squares.....	Box piles 2s. 275d. per ton.....	.....do.....	.....do.....	Do.
Fish-plates.....	.....	.....do.....	.....do.....	Do.
Tram plates.....	.....	.....do.....	.....do.....	.....do.....
Edge and bridge rails.....	.....	.....do.....	.....do.....	.....do.....
Contractors' rails.....	.....	.....do.....	.....do.....	.....do.....
Second heating—Angles, T-iron, flats, bridge-rails, and rounds and squares.....	Common sizes 11.875d. per ton; box piles 1s. 14d. per ton.	Half-price of first heating.....	Half-price of first heating.....	3s. 10.9d. includes first heating.
Rolling off angles, beams, flats, and rounds and squares.....	Common sizes 2s. 8d. per ton.....	All sizes 14 to 6-inch, 2s. 34d. and 15 per cent.	Above 50 pounds, 2s. 8d. per ton.	Ordinary sizes as above, 3s. 1.4d.; bolts and squares, 34 and above, 3s. 6.9d.; bolts, 14 and below, 3s. 1.4d.
Fish-plates, tram-plates.....	.....	2s. 34d. and 15 per cent., and for billets, 2s. 14d., and 15 per cent.	.....do.....	.....do.....
Edge and bridge rails.....	.....	.....do.....	.....do.....	3s. 1.4d. per ton.
Contractors' rails.....	.....	All sizes 2s. 10d. and 15 per cent.	7d. per ton extra.....	3s. 10.9d. per ton.
Rolling re-heated iron—Angles, T-iron, beams, flats, and rounds and squares. Assistants paid by rollers out of the above, and wages of each man.	Rougher, catcher at roughing, hooker at roughing, hooker-up finishing, catcher at finishing, man on the plate 2s. 6d. paid by firm and roller half each.	Rougher, 6d. per ton; catcher, 54d. per ton, including hooking. Catcher at finishing, 2s. per shift; hooker, 1s.; man on plate, 2s. 9d.	Rails rougher 74d., and catcher 6d., hooker-in, 1s. per day; finishing-catcher, 2s. 6d.; 3 hookers, 1s. 8d., 1s. 6d., 1s. 4d.; merchant-iron rougher, 6d. per ton; catcher, 54d.	All help at rolls and on plate, except as specified below.
Help found by firm, and wages of each man.	1 wages of man on plate as above.	Boysman from furnace to rolls, and when rolling heavy iron a hooker found.	Hooker-in, 3s. 6d. per shift, roller paying him 1s.	1 hooker-in at 4s., and allowance to roller of 5s. 6d. per shift for labor on plate.
Cutting down, wheeling, and piling.....	Wheeling & piling 10.5d. per ton.	104d. and 10 per cent.....	114d. per ton.....	Paid by roller, as above.
Dragging out and bot-straightening.....	2s. 8d. and 2s. 10d. day-work.....	1s. 1d. and 15 per cent., and for short lengths, 14d. extra.	1 at 4s. 2d., 1 at 3s. 10d., 1 at 3s. 4d., 1 at 1s. 4d. per shift.	1s. 24d. plain pile; 1s. 44d. box pile.
Sawing.....	3s. 9d. and filing saws 394d.	.....do.....	.....do.....	.....do.....
Cropping.....	4s. per day and assistant to load bogys 2s. 6d. per day.	74d. and 15 per cent.	114d. merchant iron and 94d. rails per ton, with loading and clearing hot-bed.	3 men at 3s. 2d. and 4s. 3s. 8d. per day, and 2s. 10d. per week for weighman.
Weighing and loading.....	.....	.....	.....	.....

## Standard wages in September, 1871—Continued.

## RAIL AND HEAVY ANGLE MILLS.

Description of work.	Balekrow, Vaughan & Co., Wilt- ton Park.	Hopkins, Gilkes & Co.	Darlington Iron Company.	Stockton Company.
Size of train.....	21-inch.....	18-inch.....	20-inch.....	20-inch.
Number of furnaces—	13; occasionally 14.....	13 rail; 5 angle.....	13.....	14.....
First heating.....	4.....	4 rail; 3 angle.....	4.....	4.....
Second heating.....	Above 45 pounds per yard, 1s. 7d.	Above 46 pounds per yard, 1s. 7d.; 46 pounds and under, 2s. 3d.	Above 46 pounds per yard, D. H., 1s. 7d.; flanged rails, above 58 pounds, 1s. 8d.; 36 pounds, F. B., 2s. 8d. per ton; and 40, 40.7, and 43 pounds, 2s. 3d. per ton.	50 pounds and upward, 1s. 7d.
Rolls.....	Don't make angles.....	2s. 3d., all sizes.....	Don't make angles.....	Don't make angles.
Angles.....	All bad rails made.....	2½ per cent. on rails made.....	2½ per cent. on rails made.....	All bad rails made.
Workmen's loss for rails condemned after they pass the saws.....	Above 45 pounds per yard, 9d.	Above 46 pounds per yard, 9d.; 46 pounds and under, 1s. 1d.	Above 46 pounds per yard, D. H., 9d.; flanged rails above 58 pounds, 10d.; 36 pounds, F. B., 1s. 4d. per ton; and 40, 40.7, and 43 pounds, 1s. 1d. per ton.	50 pounds and upward, 9d.
Second heating—	Don't make angles.....	1s. 1d., all sizes.....	Boy, at 1s. per day; furnacemen pay lighting.....	Boy, at 1s. per day; furnacemen pay lighting.
Rolls.....	Blooming and catching, rail-piles.....	Blooming and catching, 3d.....	D. H., 3d.; F. B., 3d.; and 40 pounds, 5d. per ton.	Blooming and catching, 3 13-16d.
Angles.....	Don't make angles.....	Don't make angles.....	Don't make angles.....	Don't make angles.
Workmen's loss for rails condemned after they pass the saws.....	Above 45 pounds per yard, 9d.	Above 46 pounds per yard, 9d.; 46 pounds and under, 1s. 1d.	Above 46 pounds per yard, D. H., 9d.; flanged rails above 58 pounds, 10d.; 36 pounds, F. B., 1s. 4d. per ton; and 40, 40.7, and 43 pounds, 1s. 1d. per ton.	50 pounds and upward, 9d.
Second heating—	Don't make angles.....	1s. 1d., all sizes.....	Boy, at 1s. per day; furnacemen pay lighting.....	Boy, at 1s. per day; furnacemen pay lighting.
Rolls.....	Blooming and catching, rail-piles.....	Blooming and catching, 3d.....	D. H., 3d.; F. B., 3d.; and 40 pounds, 5d. per ton.	Blooming and catching, 3 13-16d.
Angles.....	Don't make angles.....	Don't make angles.....	Don't make angles.....	Don't make angles.
Workmen's loss for rails condemned after they pass the saws.....	Above 45 pounds per yard, 9d.	Above 46 pounds per yard, 9d.; 46 pounds and under, 1s. 1d.	Above 46 pounds per yard, D. H., 9d.; flanged rails above 58 pounds, 10d.; 36 pounds, F. B., 1s. 4d. per ton; and 40, 40.7, and 43 pounds, 1s. 1d. per ton.	50 pounds and upward, 9d.
Second heating—	Don't make angles.....	1s. 1d., all sizes.....	Boy, at 1s. per day; furnacemen pay lighting.....	Boy, at 1s. per day; furnacemen pay lighting.
Rolls.....	Blooming and catching, rail-piles.....	Blooming and catching, 3d.....	D. H., 3d.; F. B., 3d.; and 40 pounds, 5d. per ton.	Blooming and catching, 3 13-16d.
Angles.....	Don't make angles.....	Don't make angles.....	Don't make angles.....	Don't make angles.
Workmen's loss for rails condemned after they pass the saws.....	Above 45 pounds per yard, 9d.	Above 46 pounds per yard, 9d.; 46 pounds and under, 1s. 1d.	Above 46 pounds per yard, D. H., 9d.; flanged rails above 58 pounds, 10d.; 36 pounds, F. B., 1s. 4d. per ton; and 40, 40.7, and 43 pounds, 1s. 1d. per ton.	50 pounds and upward, 9d.
Second heating—	Don't make angles.....	1s. 1d., all sizes.....	Boy, at 1s. per day; furnacemen pay lighting.....	Boy, at 1s. per day; furnacemen pay lighting.
Rolls.....	Blooming and catching, rail-piles.....	Blooming and catching, 3d.....	D. H., 3d.; F. B., 3d.; and 40 pounds, 5d. per ton.	Blooming and catching, 3 13-16d.
Angles.....	Don't make angles.....	Don't make angles.....	Don't make angles.....	Don't make angles.
Workmen's loss for rails condemned after they pass the saws.....	Above 45 pounds per yard, 9d.	Above 46 pounds per yard, 9d.; 46 pounds and under, 1s. 1d.	Above 46 pounds per yard, D. H., 9d.; flanged rails above 58 pounds, 10d.; 36 pounds, F. B., 1s. 4d. per ton; and 40, 40.7, and 43 pounds, 1s. 1d. per ton.	50 pounds and upward, 9d.
Second heating—	Don't make angles.....	1s. 1d., all sizes.....	Boy, at 1s. per day; furnacemen pay lighting.....	Boy, at 1s. per day; furnacemen pay lighting.
Rolls.....	Blooming and catching, rail-piles.....	Blooming and catching, 3d.....	D. H., 3d.; F. B., 3d.; and 40 pounds, 5d. per ton.	Blooming and catching, 3 13-16d.

Reaping to blooming-rolls.....	9 men, at 5s. 7d. per day.....	1 man, at 11.90d.....	D. H., 14d.; F. B., 11d.....	1 man, at 3s. 8d.....
Reaping from blooming to second heading.....	1 man, at 6s. 34d. per day.....	3 men, at 11.30d. each.....	D. H., 14d.; F. B., 14d.....	1 man, at 3s. 3d.....
Charging to second heading.....	1 man, at 3s. 11d.; bogeymen help.....	See above.....		
Pulling out to second heading.....	3 men, at 3s. 8d.....		3 men, at 3s., help to run cobble-bogey.....	
Bogeying to finishing-rolls.....	1 man, at 5s. 7d. per day.....	1 man, at 11.90d.....	1 man at machine, at 9s. per shift.....	
Charging and drawing angles.....		1s. 1d. includes cobble-bogey.....	D. H., 14d.; F. B., 14d.....	Charging, 9 at 3s. 5d.; drawing, 2 at 3s. 1d.....
Dragging from rolls.....	3 men, at 3s. 6d., pull from rolls to saw and from fliers to bank.....			
Throwing to fliers.....	3 men, at 4s. 11d., throw into saw, and from saw to fliers.....			
Hot filling.....	9 men, at 4s. 7d.....			
Sawing.....	1 man, at 5s. 7d. per day.....		3 men, at 4s. 6d. per day.....	1 man, at 5s. 1d.; 1 man, at 3s. 11d.....
Hot straightening.....	4 men, at 4s. 8d., hot straightening and piling on bank.....	Dragging to saw: hot straightening; hot filling; punching and notching; cold filling and dressing; hammering; loading and attending to test; none but men employed by contractor touch the rails after leaving the rolls, except cold straightener. Patching at fire, flange rails, 2s. 34d.; D. heads, 1s. 10d.....	Included in rate below for cold straightening.....	Included in hot straightening.....
Dragging to bank.....			Sawing 36 to 42 pounds, F. B. and D. H., 84d. per ton; 42 to 61 pounds, 64d. per ton; 61 pounds and upward, 6d. per ton, all D. H. and F. B.; deduct 4d. per rail for all rails shaved.....	Included in dragging.....
Hammering.....			Done by sawyers.....	
Cold filling and dressing.....	Included in dressing.....		Included in contracts below.....	Rolls, 2 at 5s. 3d. per day, including filling; angles, 2 at 4s. per day.....
Patching at fire.....	Patching, 2.60d. per rail.....		6s. and 4s. 6d. per day.....	2 or 3 men, at 4s. 9d. per day.....
Punching for fish.....	4d. per ton.....		Cold-filling included in contract below.....	
Notching.....	Punching and notching, 5d. per ton, extra notching, 7.47d.....		44d. per rail, including cutting.....	34d. per rail.....
Leading.....	2.4d. for delivery; 2.7d. to stock.....	From stock, 3d. per ton; to stock, 34d. per ton.....	34d. per ton.....	Punching and notching, 54d. per ton; punching and notching light rails, 6.6d. per ton.....
Cold straightening rails.....	94d.....		34d. per ton.....	54d. per ton.....



## Standard wages in September, 1871—Continued.

## PLATE-MILLS.

Description of work.	Bolckow, Vaughan & Co., Wilton Park.	Pease, Hutchinson & Co.	Consett Iron Company.	Palmer's Iron Company.
Size of tank. First heating—plates on sand-bottoms.	2 mills, 21-inch. From 1-in. thick to 1,200 pounds, 2s. 6.7d. per ton; below 1-in., 3s. 2.0d. per ton.	22-inch. 3s. per ton rolling off, up to 15 cwt.	1 mill, 22-inch; 5 mills, 24-inch. 3s. 3d. rolling-off.	22-inch. 2s. 7.2d. and 15 per cent. to 10 cwt.
Sheets, single, 3-16 and under. Second heating—plates.	From 1-in. to 1,200 pounds, 3s. 7.8d. per ton, includes first heating; 1s. per day clipping plates.	3s. 5d., less 5 per cent. To 15 cwt., in addition to first heating, 1s. 3d., less 5 per cent.	3s. 7.95d. 4s. 5.90d., includes first heating.	Half-price extra.
Allowances for heavy or extra plates.	Above 1,200 pounds 4s. 2.4d. per ton, on first and second heat- ing.	15 to 20 cwt., price and quarter; over 20 cwt., price and half of first-heating rate.	No specified amount.	Over 10 cwt., half-price extra, first heating in addition to first and second heating rates, 1s. per ton, includes pulling out.
Charging.	3 men, at 3s. 7d. per day, includes pulling out.	3s. 3d. per shift; man at crab, 3d. per shift extra; 9s. prize- money when 11 shifts per fort- night are obtained.	Cold-charging; rollings-off mills, 3s. 10d.; doubling lifts, 3s. 8d.; when extra furnace is working, 9d. extra; hot-charging and pulling out, 3s. 10d. extra; ad- ditional furnace, 6d. extra. In rolling-off mills, fire-lads, 1s. 6d. per furnace.	1 boy at 2 furnaces, at 1s. 1d. door- drawing. Man to fire.
Help given by firm, and wages of each man. Assistance paid by furnacemen, and wages of each. Boyeing.	1 boy, at 1s. per day. Paid by rollers.	6 boys per shift, at 1s. 4d. each. do. Paid by rollers.	In wash-heating mills 9 furnaces— men pay 3 lads at 1s. 6d. each. 4s. 8d. per day paid by firm; when working extra furnace, 9d. extra; in 5 mills paid as above; in heavy mill roller pays 2 men on each shift as above. 3s. 10d. per ton.	Firm pays roller 3s. for each shift, who finds all boyeiyng.
Rolling off plates— Ordinary piles.	6s. below 1-inch.	4s. per ton, less 5 per cent. up to 15 cwt.		3s. 2.4d. and 15 per cent.
Double piles.	4s. 2d. up to 1,800 pounds.	From 15 to 20 cwt., price and quarter; over 20 cwt., price and half.		Over 15 cwt., half-price extra.
Rolling sheets, singles, 3-16 and under.	10s. per week, each mill, for turning rolls; stamping plates, 2s. per day.	6s. per ton, less 5 per cent.	5s. 8d. per ton in rolling-off mills.	4s. 9.6d. and 15 per cent.
Cutting down, wheeling, and piling.	2s. per ton.	Time; men at 4s. 7d. per day and boys at 2s. 2d.	Wheeling, 4s.; when working extra, 1d. extra and piling, 4s. 3d. per day; when working extra, 1s. extra.	1s. 6d. and 15 per cent.

Shearing plates.....	2s. 3d. per ton, includes marking, lifting, shearing, and cutting scraps.	2s. 6d. per ton, less 5 per cent. marking, shearing, cutting scraps, includes lifting.	In 4 mills, 2s. 4½d. per ton, firm finding 2 men, at 3s. 8d. per day; in No. 4 mill, 2s. 5d., and 2 men at 5s. per day. Both these prices include all labor, except men as above.	2s. and 15 per cent. marking, lifting, and shearing.
Number of hands paid by firm, and amount to each.	None, except for very heavy plates, when laborers assist.	2 men, at 3s. 9d. per shift, at each shears, and extra help for special plates.	Except wheeling, for which firm pays.	Firm pays 1 man wheeling, at 3s. 4½d., and 2 boys cutting, at 2s. 5d., at each shears.
Does shearing include cutting up the scrap and wheeling? If not, what is paid for this?	Shearing includes cutting scrap and wheeling to scrap-shears; firm pay 2s. 9d. per day for wheeling from scrap-shears. 1 man, at 30s., 1 at 27s., 2 at 24s., and 2 at 16s. per week, for 2 mills.	Includes cutting up; firm pays 3s. per shift for wheeling away.	Time: 2 men, at 22s., and 1 boy, at 8s. per day for weighing only.	Time: 4s. 6d. per day.
Weighting.....	By contract, 1s. per ton, long weight.	8d. per ton, includes putting on machines.	3s. 10d. per day.....	5½d. and 10 per cent. per ton.
Loading.....	Contract, 3d. per ton on make...	Time: bricklayers, 5s. per day; laborers, 3s. per day.	2½d. per ton on plates made.....	4½d. per ton.
Terms of arrangement with masons for repairing furnaces.	Inspecting plates before delivery, 1 man, at 37s. 6d. per week; 1 man, at 3s. per day, testing plates; slagging from furnaces, 2 4s. 9d. per furnace; wheeling scrap, 2s. per day.	Inspector, 30s. per week.....	Coal and sand wheeling, and clearing out ashes and slag, 1s. 5½d. and 1s. 8d. per furnace.	1 inspector to each mill, at 4s. 3d. per day; coal, ash, and tap wheeling, 6½d. and 10 per cent. on make.
Additional wages paid in plate-mill...				

## SOUTH STAFFORDSHIRE.

*Standard wages paid in forges and mills.*

[The wages paid September, 1872, are 30 per cent. in advance of the figures in the following table.]

Description of work.	No. 1.	No. 2.	No. 3.	No. 4.
<b>SCRAP.</b>				
<b>Padding—</b>				
Gray pig-iron .....	9s. 6d. per ton .....	9s. 6d. per ton .....	9s. 6d. per ton. } 2s. extra for best	{ 9s. 6d. per ton.
White .....	do .....	do .....	do .....	Do.
Mixed .....	do .....	do .....	do .....	Do.
<b>Plate-iron .....</b>	7s. per ton .....	8s. per ton, refined .....	8s. and 1s. extra for best iron .....	10s. 6d. per ton.
<b>Extra paid puddler for doubles .....</b>	6d. f. i. .....	2s. 2d., and 1½ per cent. added .....	2s. 10d. per ton .....	6d. per ton.
<b>Balling heavy iron .....</b>	6d. per ton extra, 3 balls .....	1s. 7d., and 1½ per cent. added .....		2s. 3d. per ton.
<b>Reheating puddled blooms for rail-     tops .....</b>	5s. 6d. puddling rail slabs .....			
<b>Heating puddled bells—     Singles .....</b>	1s. 6d. per ton for large-sized bars; 9-inch bars, 1s. 9d. per ton; and 1d. per inch above. 6d. per ton extra, up to 9-inch bars; 3d. after.	1s. 2½d. per ton .....	1s. 4d., 5 per cent. added .....	1s. 7d. per ton.
<b>Doubles .....</b>		1s. 4½d. and 1½ per cent. added, for 5 and 7½ inch; 1s. 8½d., and 1½ per cent. added, for 10-inch bars.	1s. 8½d., 5 per cent. added .....	1s. 10d. per ton.
<b>Trebles .....</b>		2s. 6d. for 13-inch, and 1½ per cent. added; doubling 6d. ex- tra.	2s. 11d. ....	2s. 2d. per ton.
<b>Squeezing .....</b>		6½d. per ton .....		2s. 3d. per ton.
<b>Balling ordinary puddled bars .....</b>	11d. per ton, all sizes .....	10d. in one forge, 1s. in the others.	1s. 0½d. per ton, 1d. per ton extra for drawing bars.	No. 1, 1s. 1½d. 3½-inch bars. 4d. per ton.
<b>Weighting puddled and scrap bars .....</b>	3d. per ton .....	3d. per ton .....	4s. 3d., 20 per cent. added .....	2s. 1½d.
<b>Rolling ordinary bars .....</b>	Small bars, &c. extra ½ in. rounds and squares 15s. 9d., including heating; general price in small mills, 5s. 8½d. for larger sizes.	Guide mill for 1-inch and up- ward, 4s. 9d. and 19 per cent. added; merchant mill 5s. and 15 per cent. added.	Drawing doors, 6d. per turn ex- tra; large 1 by 2 inch rounds and flats, 4s. 8½d., and 5 per cent.; small merchant iron under inch, round and square, 5s. 5d., and 5 per cent.; small merchant, another mill, 6s. 3d. less 5 per cent.	3s. 3d., T and angle; 3s. 8d., 6 by 4½ T rounds and squares up to 4½-inch.
<b>Extra for large sizes .....</b>		Labors to assist in heavy iron.		1s. per pair; 2s. 6d. T-rolls; 2s. and each roll.
<b>Changing rolls .....</b>		Guide mill 1½d. per pair; mer- chant mill 6d. per pair.	5 quarts ale per fortnight .....	
<b>Rolling ordinary plates .....</b>	3s. 10d. to 4 cwt. ....	6s. 7d. ....	8s. 5d. and 5 per cent .....	8s.

Extra for large sizes	10d. per ton extra above 4 cwt.; extra above 7 and 10 cwt.	10d. and 11d. per cent. above 4 cwt.; 10s. 6d. doubled; 7s. 3d. annualing.	2s. 2d. and 11d. per cent. above 4 cwt.; 10s. 6d. doubled; 7s. 3d. annualing.	10d. and 5 per cent. on sizes above 2s4 pounds.	1s. on 400 lbs. and upward; 5s. 6d. for large plates; 2s. 6d. for squares; 2s. 6d. per ton.	1s. on 400 lbs. and upward; 5s. 6d. for large plates; 2s. 6d. for squares; 2s. 6d. per ton.
Shearing	1s. per ton, less 10 per cent.	3s. 6d. per ton; 1s. for extra sizes	3s. 6d. per ton; 1s. for extra sizes	Paid by roller, and 6d. per ton allowed for cutting up scraps.	Paid by roller.	Paid by roller.
Furnace-men in plate-mill	Assistance given by firm.	Assistance for large plates	Assistance for large plates	Assistance for large plates.	Assistance for large plates.	Assistance for large plates.
Rolling sheets—						
Singles	12s. 7d. } 3s. per ton extra on	12s. 7d. } 3s. per ton extra on	12s. 7d. } 3s. per ton extra on	12s. 7d. } 3s. per ton extra on	12s. 7d. } 3s. per ton extra on	12s. 7d. } 3s. per ton extra on
Doubles	15s. 10d. } all thinner than 14	15s. 10d. } all thinner than 14	15s. 10d. } all thinner than 14	15s. 10d. } all thinner than 14	15s. 10d. } all thinner than 14	15s. 10d. } all thinner than 14
Letsons	20s. 9d. } gauge.	20s. 9d. } gauge.	20s. 9d. } gauge.	20s. 9d. } gauge.	20s. 9d. } gauge.	20s. 9d. } gauge.
Furnace-men in sheet-mills	Paid by roller.	Paid by roller.	Paid by roller.	Paid by roller.	Paid by roller.	Paid by roller.
Shearing						
Slitting rods						
Coal and ash wheeling	6s. 6d. boat-load.	Unloading coal and stocking furnaces, 34d. per furnace; ashes, 2d. per furnace and 2s. 9d. per day.	Unloading coal and stocking furnaces, 34d. per furnace; ashes, 2d. per furnace and 2s. 9d. per day.	Unloading coal and stocking furnaces, 34d. per furnace; ashes, 2d. per furnace and 2s. 9d. per day.	Unloading coal and stocking furnaces, 34d. per furnace; ashes, 2d. per furnace and 2s. 9d. per day.	Unloading coal and stocking furnaces, 34d. per furnace; ashes, 2d. per furnace and 2s. 9d. per day.
Weight of charge.	4 cwt. and 41 cwt.	4 cwt. and 41 cwt.	4 cwt. and 41 cwt.	4 cwt. and 41 cwt.	4 cwt. and 41 cwt.	4 cwt. and 41 cwt.
Number of heats	6.	6.	6.	6.	6.	6.
Underhands wages.	3s. 6d.	3s. 6d.	3s. 6d.	3s. 6d.	3s. 6d.	3s. 6d.
Terms of arrangement with masons for repairing furnaces.	4d. per ton puddled iron; 2d. per ton finished iron, ball furnace bars, and scrap-iron; 14d. per ton puddled iron reheated.	4d. per ton puddled iron; 2d. per ton finished iron, ball furnace bars, and scrap-iron; 14d. per ton puddled iron reheated.	4d. per ton puddled iron; 2d. per ton finished iron, ball furnace bars, and scrap-iron; 14d. per ton puddled iron reheated.	4d. per ton puddled iron; 2d. per ton finished iron, ball furnace bars, and scrap-iron; 14d. per ton puddled iron reheated.	4d. per ton puddled iron; 2d. per ton finished iron, ball furnace bars, and scrap-iron; 14d. per ton puddled iron reheated.	4d. per ton puddled iron; 2d. per ton finished iron, ball furnace bars, and scrap-iron; 14d. per ton puddled iron reheated.
Burning bull-dog, grinding, wheeling in fettling, &c.	Burning, 1s. 9d. per day; grinding, 14d. per ton; wheeling, 1s. 9d. per ton; fettling, 1s. 9d. per ton; making at furnaces where bull-dog is used: 44d. per ton finished iron, less 5 per cent.; extra for shafts.	Burning, 1s. 9d. per day; grinding, 14d. per ton; wheeling, 1s. 9d. per ton; fettling, 1s. 9d. per ton; making at furnaces where bull-dog is used: 44d. per ton finished iron, less 5 per cent.; extra for shafts.	Burning, 1s. 9d. per day; grinding, 14d. per ton; wheeling, 1s. 9d. per ton; fettling, 1s. 9d. per ton; making at furnaces where bull-dog is used: 44d. per ton finished iron, less 5 per cent.; extra for shafts.	Burning, 1s. 9d. per day; grinding, 14d. per ton; wheeling, 1s. 9d. per ton; fettling, 1s. 9d. per ton; making at furnaces where bull-dog is used: 44d. per ton finished iron, less 5 per cent.; extra for shafts.	Burning, 1s. 9d. per day; grinding, 14d. per ton; wheeling, 1s. 9d. per ton; fettling, 1s. 9d. per ton; making at furnaces where bull-dog is used: 44d. per ton finished iron, less 5 per cent.; extra for shafts.	Burning, 1s. 9d. per day; grinding, 14d. per ton; wheeling, 1s. 9d. per ton; fettling, 1s. 9d. per ton; making at furnaces where bull-dog is used: 44d. per ton finished iron, less 5 per cent.; extra for shafts.
Roll-turning	Long	Long	Long	Long	Long	Long
Long or short weight	44d. per ton on all iron going through rolls.	44d. per ton on all iron going through rolls.	44d. per ton on all iron going through rolls.	44d. per ton on all iron going through rolls.	44d. per ton on all iron going through rolls.	44d. per ton on all iron going through rolls.
Wages paid to smiths.	2s. 8d. to 4s. 6d. per day.	2s. 8d. to 4s. 6d. per day.	2s. 8d. to 4s. 6d. per day.	2s. 8d. to 4s. 6d. per day.	2s. 8d. to 4s. 6d. per day.	2s. 8d. to 4s. 6d. per day.
Pattern-makers	5s. to 8s. per ton; hammers and anvils, 10s.; flasks, 15s.; rolls, 18s.; wheels, 20s.; chilled rolls and beveled wheels, 35s.; melting, 1s. on whole weight.	5s. to 8s. per ton; hammers and anvils, 10s.; flasks, 15s.; rolls, 18s.; wheels, 20s.; chilled rolls and beveled wheels, 35s.; melting, 1s. on whole weight.	5s. to 8s. per ton; hammers and anvils, 10s.; flasks, 15s.; rolls, 18s.; wheels, 20s.; chilled rolls and beveled wheels, 35s.; melting, 1s. on whole weight.	5s. to 8s. per ton; hammers and anvils, 10s.; flasks, 15s.; rolls, 18s.; wheels, 20s.; chilled rolls and beveled wheels, 35s.; melting, 1s. on whole weight.	5s. to 8s. per ton; hammers and anvils, 10s.; flasks, 15s.; rolls, 18s.; wheels, 20s.; chilled rolls and beveled wheels, 35s.; melting, 1s. on whole weight.	5s. to 8s. per ton; hammers and anvils, 10s.; flasks, 15s.; rolls, 18s.; wheels, 20s.; chilled rolls and beveled wheels, 35s.; melting, 1s. on whole weight.
Loam-molders	25s. to 28s. per week.	25s. to 28s. per week.	25s. to 28s. per week.	25s. to 28s. per week.	25s. to 28s. per week.	25s. to 28s. per week.
Sand-molders						
Engine-men						
Firesmen.						

## ROTARY PUDDLING.

It may not be amiss in this connection to refer to the introduction, with apparent success, of mechanical puddling, effecting as it will by its labor-saving process a very considerable reduction in the cost of puddling. Mr. Bell, who has recently been examining the process as conducted in American furnaces, says he believes—

That rotary puddling will ultimately be achieved, and it may be the result of some modification of the apparatus invented by Mr. Danks. Whenever hand-puddling is superseded by mechanical means, Mr. Danks will deserve great credit for the assistance he has already rendered, not only in perfecting the furnace itself, but in devising other appliances required in manipulating large masses of iron.

Mr. Jones, the superintendent of the Erimus works, says:

The fettling for the furnace and the materials used for the same are no longer questions of difficulty, and in this respect we have no drawback. We line the furnace after each heat with best tap, Pottery mine, purple ore, and Spanish ore; suitable proportions are mixed in a grinding mill and then used in the furnaces. Fettling can be procured suitable to any district, where the difference in the quality of the pig-iron mostly necessitates a variation in the fettling ingredients.

With regard to the mechanical imperfections of the Danks machines, they have been of a serious character. The repairs have been very costly, and the loss of output, by reason of frequent stoppage, has affected the cost of production most unfavorably. It became apparent that unless the mechanical construction of the furnace was such as to insure regularity of work, it was hopeless to expect satisfactory returns. A new furnace of a different construction was built. It is a double-cased wrought-iron furnace, hooped with steel, and is water-jacketed. There is a constant flow of water to and from the water space, and the water at the outlet pipe is kept at from 80° to 100° Fahr., in fact, perfectly cool. This double-cased furnace has maintained its mechanical accuracy, which it is almost impossible that a single-cased furnace can do, owing to the effects of expansion and contraction. The firing of the new furnace is done in the usual manner. It will not be necessary to describe in detail the improvements of this machine. Mr. James Jones claims that it has been designed and constructed after all the weak points of its forerunner have been carefully considered. The directors are so satisfied with the work done by this machine that they have ordered five more, and six sets of new engines to drive them. In designing the engines the same amount of care has been taken. They are over-head double-cylinder engines; the wearing parts have been carefully designed, and nothing in strength or in the detail is left unprovided for, so as to assure continuous and satisfactory working.

Pig-iron refined in Thomas's cupolas is used. The chemical effect is to remove a part of the silicon and phosphorus, and in the furnace the fettling stands better. The weight of the charge is 14 cwt.

No heat takes more than 35 minutes to puddle. The heat is removed in a single ball, and squeezed or shaped into a piece about 4 feet long by 15 inches diameter. It is then cut up at the same heat and taken to reheating furnaces, where it is reheated, hammered and rolled into bars. The Erimus Company are now making angles, bulbs, bars, and tees, with no other iron than Cleveland.

Three relays of men are employed at the machines, and work eight-hour shifts.

The present consumption of coal is for actual puddling 9½ cwt. to the ton of bars. Of fettling (half bought and half from first heating or mill furnaces) 9 cwt. to the ton of bars. The yield of bar from pig is 20 cwt. of pig to 20 cwt. of bars. The whole quantity of coal used to the ton of bars, including reheating, is under 20 cwt. The price we pay the puddlers is at present 3s. 2 4-10d. per ton long weight, they paying their own underhands. The whole wages of every kind, including cupola-refining and reheating, is under 20s. per ton of bars.

It is intended to increase the charge to one ton.

The experiment of working this charge has frequently been made, and the time required for puddling never exceeds forty minutes. The number of heats will be the same as at present, viz., six in eight hours, and it is simply by the increase of the weight of the charge that the quantity will be raised from 300 to 500 tons. The actual puddling of the six heats will take up four hours for fettling, repairing, cleaning grate-bars, &c.

We find that it takes the same coal to puddle a ton as to puddle 14 cwt., and as the time consumed in charging, drawing, fettling, and squeezing will be the same as at present, it is obvious that the increase of the charge to a ton is the proper course. We have no doubt that we shall be able to bring the consumption of coal for puddling down to 7 cwt. to the ton of bars, and the whole of the coal consumed in the puddling department to 15 cwt., and we anticipate that the wages will not exceed 15s. on the ton of bars, which will include all labor charges in the puddling department.

## YORKSHIRE.

*Wages paid at Monk Bridge Iron-Works, and elsewhere in Leeds consular district.*

Description of work.	Per ton, at—	
	Monk Bridge Iron-Works, 3 July, 1872.	Leeds Consular District, September 1, 1872.
<b>PUDDLING.</b>		
Puddling iron to helve-hammers .....	s. d.	s. d.
Puddling iron for 12-inch .....	13 6	13 6
Puddling iron for molds, doubled .....	14 6	14 6
Puddling iron for 9 and 10 inch bars, in 3 balls .....	14 6	14 6
Puddling iron for 9 and 10 inch bars, doubled .....	14 0	14 0
Puddling borings and turnings .....	12 6	12 6
Puddling borings and turnings for 12-inch .....	13 6	13 6
Puddling iron to steam-hammers .....	13 0	13 0
Puddling borings and turnings .....	12 0	12 0
Puddling besseled turnings .....	11 0	11 0
<b>HELVE-HAMMERS.</b>		
Shingling .....	*1 10	2 4
Shingling for 10-inch bars .....	*1 11	2 6
Doubling for 12-inch bars .....	*2 6	3 3
Doubling for molds .....	*2 6	3 3
Rolling forge-bars .....	*1 0	1 3
<b>ROD-MILL.</b>		
Heating and rolling bars:		
1 inch, round and square, and flats 1½ inches and above .....	15 0	7 6
Flats under 1½ inches, bars under 1 inch round .....	15 6	8 3
Bars, 11-16 and ½, round and square .....	16 6	9 9
Bars, 9-16 and ¼, round and square .....	18 0	12 0
Bars, 7-16 and ⅓, round and square .....	111 0	16 6
Bars, 5-16 and ⅔, round and square .....	116 0	24 0
Flats, under ½ inch thick .....	17 3	10 10
Flats, under 1 inch broad .....	17 3	10 10
Flats, under ½ inch thick and 1 inch broad .....	18 9	13 1
Flats, 11-16 and ⅔; ¼ and ⅓, and ½ .....	110 0	15 0
Flats, ½ and 3-16, ¼ and ⅓ .....	116 0	24 0
Billets .....	13 3	4 10
<b>14-INCH BAR-MILL.</b>		
Heating and rolling:		
All bars, round and square, to 3 cwt., and all flats 1 to 6 inches broad .....	15 0	7 6
Bars, 3 to 4 cwt. .....	16 6	9 9
Bars, 4 to 5 cwt. .....	19 0	12 0
Bars, above 5 cwt. .....	19 6	14 3
Bars, under ½ inch thick .....	16 6	9 9
<b>PLATE-MILL.</b>		
Heating and rolling:		
Plates from piles under 4 cwt. .....	18 0	12 0
Plates from piles 4 to 5 cwt. .....	19 6	14 3
Plates from piles 5 to 6 cwt. .....	112 0	18 0
Plates from piles 6 to 7 cwt. .....	114 6	21 9
Plates from piles 7 to 8 cwt. .....	116 6	24 9
Plates from piles 8 to 9 cwt. .....	119 6	29 3
Plates from piles 9 to 10 cwt. .....	121 6	32 3
<b>STEAM-HAMMERS.</b>		
Hammermen:		
Yorkshire slabs, under 700 pounds .....	7 6	7 6
Yorkshire slabs, 700 to 1,000 pounds .....	10 0	10 0
Yorkshire slabs, 1,000 to 2,000 pounds .....	12 0	12 0
Yorkshire slabs, above 2,000 pounds .....	14 0	14 0
Furnacemen:		
Yorkshire slabs, under 700 pounds .....	6 9	6 9
Yorkshire slabs, 700 to 1,000 pounds .....	7 6	7 6
Yorkshire slabs, 1,000 to 2,000 pounds .....	10 0	10 0
Yorkshire slabs, above 2,000 pounds .....	12 0	12 0

\* Add 30 per cent.

† Add 50 per cent.

## NORTH STAFFORDSHIRE.

*Wages paid at the Biddulph Valley and Norton Iron-Works, North Staffordshire, August 31, 1872.*

Description of work.	Per ton.	Description of work.	Per ton.
Puddling:	s. d.	Rolling and heating:	s. d.
Nobbling .....	12 6	Ordinary plates .....	16 1
Doubling .....	13 6	Faggoting plates .....	19 8
Castings .....	14 6	Reheating plates .....	19 8
Rivet-iron, (best) .....	14 6	Extra-large plates, (over 17 cwt. finished, or 5 feet wide, half circles) ...	113 2
Heating:		Rolling, heating, and straightening:	
Piles .....	*3 0	Merchant bars .....	14 3
Blooms .....	*2 1	Under 24 pounds per foot .....	15 6
Shingling, steam-hammers:		Rounds and squares, 4½-inch and upward, and flats, 7 to 8 inch .....	16 2
Nobbling .....	*1 0	Rounds and squares, 7-16 and 3-8 inch, and flats under 1 by ½ inch .....	17 8
Doubling .....	*1 6	Rounds and squares, 5-16 and 1-4 inch .....	111 3
Squeezing .....	*24	T-iron .....	14 9
Forge-rolling .....	*11½	Reheating .....	12 1½
Brick laying, repairing furnaces:		Changing rolls, 88s.0d .....	
Forges .....	*4		
Mills .....	*3		
Cutting down for bar-mills .....	11 0		
Cutting down for plate-mills .....	18½		

\* With 30 per cent. on.

† With 50 per cent. on.

‡ Extra, with 50 per cent.

§ Per turn per fortnight.

## NORTH AND SOUTH STAFFORDSHIRE.

*Wages paid in forges and mills in 1872.*

Puddling pig-iron, 6 heats, ordinary quality .....	12s. 6d. per ton of 2,640 pounds.
Puddling pig-iron, 5 heats, best quality .....	12s. 6d. per ton of 2,640 pounds.
Puddling pig-iron, 5 heats, extra best .....	1s. per ton extra.
1 to 2 cwt. of scrap-iron, per turn, allowed at full rate for puddling.	
1 to 2 cwt. for doubled-iron, two or more balls hammered together, 1s. per ton.	
	Shillings. Pence.
1 to 2 cwt. castings .....	14 6 per ton.
Hammering, steam-hammer .....	1 4 per ton.
Hammering, steam for doubling .....	1 10 per ton.
Squeezers .....	1 0 per ton.
Forge-rolling .....	1 4 per ton.
Stocktaking-mills for plates .....	1 2 per ton.
Stocktaking-mills for bars .....	1 8 per ton.
Miscellaneous labor in forges, iron to forge, coal, including ash-wheeling, mill-wrighting, smithing, &c. ....	7 6 per ton.
<i>In plate-mill:</i>	
Rolling and heating ordinary plates .....	9 4 per ton.
Rolling and heating faggoted plates .....	14 6 per ton.
Reheated .....	14 6 per ton.
Extra large and up to 5 feet wide .....	18 3 per ton.
Shearing and spelling, &c. ....	7 6 per ton.
Miscellaneous labor in mills .....	5 0 per ton.

## SOUTH WALES.

*Wages paid in iron-mills.*

	Per ton.
Merchant-mill, ordinary sizes, heating, rolling .....	6s. 4d.
Under 2½ pounds per foot .....	7s. 9d.
Large rounds, squares, angles, and T-iron .....	9s. 4d.
Small angles and T-iron .....	7s. 6d.
Reheating .....	3s. 4d.
Seven-sixteenths and ⅜ rounds and squares, flats under 1 and ⅓ .....	11s. 4d.
Miscellaneous labor in mill .....	5s. 0d.
	Per day.
Ordinary labor is from .....	4s. to 5s.
Engineers' wages .....	5s. 6d. to 6s. 6d.
Machinists .....	6s. to 7s. 6d.
Mill-wrights .....	5s. 6d. to 6s. 6d.
Coal-wheelers and ash-wheelers .....	5s. to 6s.
Forge and mill stocktakers .....	4s. 6d. to 5s. 6d.
Puddlers' underhands .....	4s. to 5s. 6d.
Hammermen's assistants .....	8s. to 9s.
Rollers' assistants .....	8s. to 11s.
Boys from 11 to 14 years of age .....	1s. 8d. to 3s. 4d.

Wages range in South Wales from 15 per cent. to 20 per cent. less than other parts. Men in South Wales earn, however, about as much as in England. They have more steady work, get rent cheaper, paying about 1s. per week for rooms which in England cost about 4s.; get coal for a trifle, say 3s., while no allowance is made in England.

## STATEMENT OF WALTER WILLIAMS, ESQ.

When Mr. Williams was in Washington, in December, 1872, he gave the following summary of the wages which then obtained in the iron-mills of England:

For six-heat iron, 12s. 6d. in all parts of England except in Wales; less in Wales. Best, or five-heat iron, 1s. per ton extra. A man gets the same wages for five heats as he does for gray or ordinary iron.

Puddler pays to underhands 4s. to 4s. 6d., and pays one additional turn alternate weeks. For working level-hands, 6d. per day. Prize-money allowed of 5s. per fortnight where they work full time. Puddlers allowed one scrap-ball each per day, nominally one hundred-weight, generally two, and are paid at the same rates as if for puddling.

Hammering single balls and shingling, 9d. per ton; hammering double balls, 1s.; hammering three and four balls, 1s. 2d. Assistance given by the firm in conveying the metal from the furnace to the squeezers. Forge-rolling ordinary puddle-bars, 10d.; dragging out and straightening, 3d. per ton; add to all the above, except puddling, 20 per cent.

Men engaged in shearing and taking out puddle-bars from the forge, 4s. 7½d.; coal, ash, and wheeling, 5s. 3d. per day.

*Rail-mills.*—First heating, 1s. 11d. per ton; second heating, 11½d. for rails.

*Angles.*—First heating, 2s. 9d.; second heating, 1s. 2½d. This is seldom done.

Furnacemen pay a shilling a day out of above wages.

In rail and heavy angle mills, when paid by the ton, including all labor, 3s. 6d. per ton.

Blooming and catching, 5½d.

Semi-skilled labor in rail and angle-mills, 5s. 3d. and 6s. 3d. per day.

All labor outside from 5s. 3d. to 6s. 3d. per day.

Rolling ordinary bars, 3s. 3d. per ton; rolling reheated iron, 4s. 6d.; all extra assistance found by the firm.

Roller finds all help at rolls at above rates.

Extra help beyond those at rolls found by firm, varying in wages from that of a man at 5s. 3d. to a boy at 2s. 10d.





*Forgemen's wages in Sheffield, England.*

Dates.	Puddling, per ton 2,400 pounds.	Shingling, per ton.	Rolling, per ton.
	s. d.	s. d.	s. d.
April, 1868.....	7 0	1 0½	1 0
December, 1869.....	8 0	1 1½	1 0½
October, 1871.....	9 0	1 2	1 1½
March, 1873.....	10 0	1 4	1 3
August, 1872.....	12 0	1 7½	1 6½
May, 1873.....	12 9	1 8½	1 7

## WAGES IN STEEL-WORKS.

*Statement showing the average weekly earnings in 1872 of workmen in Sheffield Steel-Works.\**

	£	s.	d.	U. S. Gold.
Puddlers.....	2	5	0	\$10 89
Helpers.....	1	0	0	4 84
Shinglers.....	4	0	0	19 36
Shinglers' helpers.....	1	0	0	4 84
Forge-rollers.....	4	0	0	19 36
Ball furnace-men.....	3	0	0	14 52
Ball furnace-men's helpers.....	1	0	0	4 84
Blacksmiths.....	2	0	0	9 68
Strikers.....	1	4	0	5 80
Fitters.....	1	10	0	7 26
Slotters and planers.....	1	8	0	6 78
Laborers.....	1	1	0	5 08
Engine-tenters.....	1	13	0	7 98
Firemen.....	1	9	0	7 02
Hammer-men.....	1	10	0	7 26
Ash-wheelers.....	1	0	0	4 84
Coal-unloaders.....	1	0	0	4 84
Trolley-boys.....	0	10	0	2 42

## COAL-MINING.

Having presented the changes that have occurred in the earnings of men employed in the various departments of the iron industry since September, 1871, it is eminently proper to show the various mutations in the cost of production which another industry intimately connected with the former has undergone since the month of September, 1871.

## COAL-FIELDS OF DURHAM AND NORTHUMBERLAND.

By way of an introduction to the subject the following extracts from a report of Mr. Jones, United States consul at Newcastle, on the "Industrial Resources of the Tyne," are submitted:

I will now consider the industrial resources of the Tyne, commencing with coal, that mineral being entitled to head the list as the chief product of the district, as the reports generally speak of this as the Northumberland and Durham district.

Carrying coals to Newcastle has ever been looked upon as impossible and absurd, in a business point of view, yet, since the present high figures have prevailed, coals have been carried to Newcastle from Hull, and latterly from Belgium, clearly proving that the coal-market of the present day is in an unhealthy condition.

\* The above is the estimate of a gentleman connected with one of the largest steel-manufacturing works of Sheffield.

The coal-fields of Durham are more extensive and the mineral softer than that of Northumberland, which is hard, and in thin seams, requiring a far greater amount of skill in the working thereof than the Durham coal. The annual product is not less than twenty-eight millions of tons. The number of colliers in the Northumberland mines is about thirteen thousand, the average price for mining being 42 cents per ton. In the Durham district the number of colliers is much larger, averging about thirty-four thousand, the price per ton for mining being 30 cents. The recent general rise in the price of coals throughout England is nowhere more striking than at Newcastle. In September, 1871, coals sold at \$2.42 per ton, and in September, 1872, the same coals were sold at \$6.05 per ton, and according to newspaper reports a contract has just been entered into in France for the supply to England of 250,000 tons.

The following statements showing the maximum and minimum cost of labor in the Durham and in the Northumberland coal-mines in 1873, also the advances and reductions made in the wages of miners, with their average earnings at various dates from April, 1871, to December, 1874, were furnished by T. W. Bunning, esq., mining-engineer of Newcastle-on-Tyne, England:

## DURHAM.

*Off-hand labor below ground.*

[The prices include all percentages given up to December 31, 1873.]

Class of labor.	Wages per day, with house or allowance for rent.			Class of labor.	Wages per day, with house or allowance for rent.		
	Maximum.	Minimum.	Mean.		Maximum.	Minimum.	Mean.
Fore overman.....	\$3 28	\$1 51	\$1 86	Greasers, (no house).....	\$1 27	\$0 38	\$0 83
Back overman.....	1 78	1 21	1 49	Hauling-enginemmen.....	1 65	1 25	1 45
Deputies.....	1 82	1 25	1 53	Pumping enginemmen.....	1 61	1 09	1 35
Timber-leaders.....	1 57	73	1 15	Firemen.....	1 37	65	1 01
Master shifters.....	1 78	97	1 37	Furnacemen.....	1 33	67	1 01
Shifters.....	1 59	68	1 13	Lampmen.....	1 47	60	1 03
Chockmen, (contract work).....	2 42	1 39	1 90	Water-leaders.....	1 57	69	1 13
Stonemen.....	1 94	1 25	1 58	Horse-keepers.....	1 57	61	1 09
Stone-putters.....	1 37	61	97	Rolley-way men.....	1 94	97	1 45
Master wastemen.....	1 90	97	1 43	Rolley-way boys.....	1 57	57	1 07
Wastemen.....	1 55	79	1 17	Set-riders.....	1 57	77	1 17
Helpers-up, (no house).....	1 33	46	89	Onsetters.....	2 30	78	1 54
Braking inclines, (no house).....	1 55	50	1 03	Onsetters' boys.....	1 21	40	81
Drivers, (no house).....	75	42	58	Shaft-men.....	1 78	79	1 29
Flatters, (no house).....	97	36	67	Masons.....	1 45	93	1 19
Putters-driving, (no house).....	1 23	61	91	Masons' laborers.....	1 11	93	1 01
Landing-lads, (no house).....	1 35	34	85	Chargemen sinkers.....	1 86	1 82	1 84
Couplers, (no house).....	1 21	36	79	Sinkers.....	1 78	1 00	1 74
Switch-keeper, (no house).....	89	36	63	Walters-on.....	1 53	1 03	1 28
Trappers, (no house).....	63	24	43	Hewers at off-hand work.....	1 60	97	1 33

Hand-putters' average earnings, \$1.53 per day; pony-putters' average earnings, \$1.09. These work men were all advanced and reduced at the same dates and to the same amount as miners or hewers.

*Statement showing the advances and reductions made in the wages of Durham miners, together with their average earnings, at various dates since April, 1871.*

Dates.	Advances.	Reductions.	Total advance above 1871 prices.	Average earnings.
First six months in 1871.....				\$1 12
January and February, 1872.....				1 25
March, 1872.....	20 per cent.....			
July, 1872.....	15 per cent.....		38 per cent.....	
December, 1872.....				1 78
February, 1873.....	15 per cent.....		58.7 per cent.....	
December, 1873.....				1 62
April, 1874.....		10 per cent.....	43.4 per cent.....	
November, 1874.....		9 per cent.....	30 per cent.....	
December, 1874.....				1 49

*Durham coal-fields. Off-hand labor above ground.*

[These prices include all percentages given up to December 31, 1873.]

Class of labor.	Wages per day, with house found or rent allowed.			Class of labor.	Wages per day, with house found or rent allowed.		
	Maximum.	Minimum.	Mean.		Maximum.	Minimum.	Mean.
Foremen smiths .....	\$1 94	\$0 96	\$1 45	Token-men .....	\$1 33	\$0 70	\$1 01
Smiths .....	1 34	1 02	1 18	Token-boys .....	72	24	1 43
Horse-shoers .....	1 53	1 00	1 27	Keeper on screens .....	1 89	96	1 07
Pick-sharpeners .....	1 79	78	1 29	Screeners .....	1 16	60	88
Strikers .....	1 08	58	80	Small-wagon boy .....	72	28	50
Boiler-builders .....	1 45	1 00	1 23	Apparatus-boy .....	72	28	50
Foremen joiners .....	2 02	1 12	1 57	Waiters .....	48	26	37
Joiners .....	1 37	86	1 11	Callers .....	(*)	(*)	(*)
Wagon-wrights .....	1 23	1 02	1 13	Stone-teamers .....	1 45	70	1 07
Tub-menders .....	1 27	80	1 03	Laborers .....	1 41	80	1 11
Sawyers .....	1 39	88	1 13	Horse-keepers .....	1 21	80	1 00
Fitters .....	1 45	1 08	1 27	Cartmen .....	1 08	64	86
Changers and grathers .....	1 89	1 08	1 49	Plate-layers .....	1 39	88	1 59
Saddlers .....	1 41	1 02	1 21	Plate-layers' assistants .....	1 10	60	85
Groomers .....	1 45	96	1 21	Branch-drivers .....	1 21	72	96
Masons .....	1 55	96	1 25	Wagon-greasers, boys .....	60	30	45
Masons' laborers .....	1 21	46	83	Branch-men .....	1 21	82	1 01
Winding-enginemn, (8 hours) .....	1 71	84	97	Bank-riders .....	1 39	96	1 13
Pumping-enginemn, (8 hours) .....	1 33	1 33	1 33	Bank-headmen .....	1 14	86	1 00
Hauling-enginemn, (8 hours) .....	1 33	1 33	1 33	Bank-bottom men .....	1 21	87	1 04
Fus-enginemn, (12 hours) .....	1 33	1 25	1 29	Coke-burners .....	1 77	96	1 37
Locomotive-enginemn, (12 hrs.) .....	1 61	1 33	1 47	Coke-drawers, (contract) .....	1 08	96	1 47
Boiler-minders .....	1 33	1 00	1 17	Coke-fillers, (contract; no allowance for house or rent) .....	1 94	1 12	1 53
Firemod, pit .....	1 33	76	1 05	Small-runners or loaders, (no allowance for house or rent) .....	1 94	50	1 23
Firemen, locomotive .....	1 39	86	1 13	Oven-daubers, boys .....	60	24	43
Inspector or heap-keeper .....	1 77	92	1 35	Oven-levelers .....	1 18	1 06	1 12
Banksmen .....	1 85	96	1 41	Staitthmen .....	1 31	1 00	1 10
Putting in tube, boys .....	72	34	53	Teamers .....	1 02	92	97
Putting in tube, men .....	1 53	76	1 15	Laborers, (no allowance for house or rent) .....	1 21	64	92
Pick-carriers .....	60	24	42				
Tub-cleaners .....	60	24	42				
Weighmen .....	1 59	76	1 17				

\* According to time.

*General advances.*—The first was made in February, 1872, 12½ per cent.; the second was made in July, 1872, 10 per cent.; and the third in February, 1873, 15 per cent., making a total advance of 42.3 per cent.

*Reductions.*—The first was made in April, 1874, 10 per cent. on all surface labor, except engine-men, who were reduced 5 per cent. The second was made in November, 1874, 6 per cent. all round.

## NORTHUMBERLAND.

*General advances.*—In February, 1872, the above and below ground off-hand labor was scheduled by a committee and advanced in wage, and in July, 1872, banksmen, putters, and shifters were again advanced 20 per cent.; a third advance was given to banksmen, 10 per cent., putters and shifters, 15 per cent.; making a total of 30 per cent. to banksmen, and 35 per cent. to putters and shifters.

In August, 1872, mechanics' wages were advanced 10 per cent., and in March, 1873, it was decided that 5s. per day should be the maximum.

*Reductions.*—See minutes of meetings for May 1 and October 30, 1874, on page 299.

*Northumberland coal-fields. Off-hand labor below ground.*

[These prices include all percentages given up to December 31, 1873.]

Class of labor.	Wages per day, with house or allowance for rent.			Class of labor.	Wages per day, with house or allowance for rent.		
	Maximum.	Minimum.	Mean.		Maximum.	Minimum.	Mean.
Fore overmen .....	\$2 30	\$1 74	\$2 02	Hauling-enginemn .....	\$1 82	\$1 45	\$1 63
Back overmen .....	\$2 02	1 51	1 76	Pumping-enginemn .....	1 21	1 21	1 21
Deputies .....	1 22	1 69	1 75	Firemen .....	1 09	1 09	1 09
Timber-leaders, (no house) .....	1 23	57	90	Furnacemen .....	1 21	61	91
Master shifters .....	1 22	1 25	1 53	Lampmen .....	1 39	69	1 04
Shifters .....	1 26	79	1 30	Water-leaders .....	1 33	1 09	1 21
Chockmen .....	1 22	1 21	1 51	Horse-keepers .....	1 33	65	99
Stonemen .....	1 94	1 51	1 72	Rolley-way men .....	1 08	93	1 40
Stone-putters .....	1 45	1 21	1 33	Rolley-way boys .....	1 08	73	91
Master wastemen .....	\$2 02	1 21	1 61	Set-riders, (no house) .....	1 21	54	78
Wastemen .....	1 63	95	1 29	Onsetters .....	\$2 14	1 11	1 63
Helpers up, boys .....	85	48	67	Shaft-lads .....	1 03	57	86
Braking inclines, boys .....	1 21	61	91	Shaft men .....	\$2 03	1 21	1 61
Drivers, boys .....	61	48	54	Masons .....	1 33	1 11	1 22
Flatters, boys .....	73	44	58	Masons' laborers .....	1 09	71	90
Putters driving, boys .....	1 21	85	1 03	Chargemen-sinkers .....	1 00	1 82	1 90
Landing-lads, boys .....	1 03	38	70	Sinkers .....	1 78	1 00	1 73
Couplers, boys .....	73	46	60	Waiters-on .....	1 38	1 33	1 66
Switch-keepers, boys .....	57	38	48	Hewers at shift or off-hand work .....	\$2 18	1 73	1 75
Trappers, boys .....	48	31	40	Hand putters .....	.....	.....	1 49
Greasers, boys .....	73	38	55	Pony putters .....	.....	.....	1 26

*Off-hand labor above ground.*

[These prices include all percentages given up to December 31, 1873.]

Class of labor.	Wages per day, with house or an allowance for rent.			Class of labor.	Wages per day, with house or an allowance for rent.		
	Maximum.	Minimum.	Mean, in U. S. gold.		Maximum.	Minimum.	Mean, in U. S. gold.
Foremen smiths .....	\$1 61	\$1 16	\$1 38	Pick-carriers, (boys) .....	\$0 92	\$0 26	\$0 59
Smiths .....	1 39	96	1 18	Tub-cleaners, (boys) .....	84	26	55
Horse-shoers .....	1 27	1 06	1 16	Weighmen .....	1 33	84	1 08
Pick-sharpeners .....	1 21	72	97	Token-men .....	88	68	78
Strikers .....	1 08	80	94	Token-boys .....	68	32	50
Boiler-builders .....	1 33	1 04	1 18	Keekers on screens .....	1 21	79	1 00
Foremen joiners .....	2 01	1 08	1 53	Screeners .....	1 60	84	1 22
Joiners .....	\$2 42	86	1 64	Small-wagon boys .....	96	32	64
Wagon-wrights .....	\$2 42	1 12	1 77	Apparatus-boys .....	66	36	51
Tub-menders .....	\$2 42	84	1 63	Waiters, (boys) .....	88	28	58
Sawyers .....	2 42	96	1 13	Stone-teamers .....	1 10	76	93
Fitters .....	1 35	96	1 15	Laborers .....	1 14	72	93
Changers and grathers .....	1 33	1 21	1 27	Horse-keepers .....	1 21	70	96
Saddlers .....	1 29	94	1 11	Cartmen .....	96	70	83
Gasmen .....	1 08	80	94	Plate-layers .....	1 10	82	96
Masons .....	1 33	96	1 14	Plate-layers' assistants .....	1 10	72	91
Masons' laborers .....	1 08	72	90	Branch-drivers .....	1 16	84	1 00
Winding-enginemn .....	1 45	1 45	1 45	Wagon-greasers, (boys) .....	1 16	32	74
Pumping-enginemn .....	1 69	1 45	1 57	Branch-men .....	1 14	84	90
Hauling-enginemn .....	1 45	1 45	1 45	Bank-riders .....	92	88	90
Fan-enginemn .....	1 45	1 08	1 26	Bank-headmen .....	1 14	88	1 01
Locomotive-enginemn .....	1 45	1 21	1 33	Bank-bottom men, (no house) .....	88	48	68
Boiler-winders .....	1 57	1 10	1 34	Coke-burners .....	1 25	1 25	1 25
Pit-fremen .....	1 24	86	1 05	Coke-drawers .....	1 51	1 38	1 45
Locomotive-fremen .....	1 06	80	88	Coke-fillers, (no house) .....	1 35	84	1 09
Guards .....	1 08	96	1 02	Stalthmen .....	1 45	80	1 13
Inspector or heap-keeper .....	1 61	80	1 20	Teamers .....	1 02	88	95
Bauksmen .....	1 26	91	1 45	Laborers .....	1 00	32	66
Putters-in of tubs, (boys) .....	1 21	40	80				

## WAGES OF NORTHUMBERLAND MINERS IN 1874.

The following statement showing the earnings of Northumberland miners in 1874, was furnished by Mr. Burt :

	Maximum.	Minimum.	Mean.
Fore-overmen ..... per week..	\$14 52	\$12 10	\$13 31
Back overmen ..... do..	12 10	9 68	10 90
Deputies ..... do..	.....	.....	10 12
Hewers ..... per day..	1 92	1 68	1 80
Laborers, (underground) ..... do..	1 08	96	1 02
Laborers, (at bank) ..... do..	84	72	78
Enginemen ..... per week..	9 60	8 40	9 00
Mechanics ..... do..	7 20	6 00	6 60

## ADVANCES AND REDUCTIONS.

Statement showing the advances given and reductions made in the wages of Northumberland miners, with their average earnings, at various dates since April, 1871.

Dates.	Advances.	Reductions.	Total advance above 1871 prices.	Average earnings.
March, 1871.....	.....	.....	.....	\$1 33
February, 1872.....	10 per cent..	.....	.....	.....
May, 1872.....	.....	.....	.....	1 47
July, 1872.....	22 per cent..	.....	32 per cent..	.....
September, 1872.....	.....	.....	.....	1 91
March, 1873.....	18 per cent..	.....	50 per cent..	.....
December, 1873.....	.....	.....	.....	2 90
April, 1874.....	.....	10 per cent..	40 per cent..	.....
October, 1874.....	.....	14 per cent..	26 per cent..	.....
December, 1874, (computed).....	.....	.....	.....	1 85

At a meeting of the Steam Colliers' Defense Association held May 1, 1874, it was decided that—

*Putters* and other underground men, now receiving 35 per cent. advance, be reduced to 27 per cent.

*Trappers*.—Wages reduced 1*d.* per day.

*Drivers*.—Wages reduced 2*d.* per day.

*Banksmen* now receiving 30 and 35 per cent. advance, to be reduced to 25 per cent., inasmuch as the men who have been getting 35 per cent. have been getting more than the trade allowed.

*Deputies* having 7*s.* and 7*s.* 6*d.* per day to be reduced to 6*s.* 6*d.* and 7*s.* Prop and chock drawing to remain unaltered.

*Standard stonemen*.—Fixed at 7*s.* per day.

*Screeners*.—Those who are paid by the piece to be reduced 5 per cent., and those who are paid by the day to remain as they are.

On June 30 engine-men were reduced 4*d.* per day.

At a special meeting held October 30, 1874, the following reductions were mutually agreed to:

*Putters and others* at present receiving an advance of 27 per cent. to be reduced 11 per cent., leaving an advance of 16 per cent.

*Trappers*.—Wages to be reduced 1*d.*

*Drivers*.—Wages to be reduced 2*d.*

*Banksmen*.—Advances to be reduced so as to leave an advance of 15 per cent.

*Deputies*.—Where no prop drawing to be paid, 7*s.*; where they draw props, 6*s.* 6*d.*; for drawing props, 6*d.* per score; chockles 4*d.* a chock.

*Screeners*.—Daily wage to remain as at present; piecework 10 per cent. reduction.

*Mechanics*.—Wages to be reduced 5 per cent.

## SWANSEA AND CARDIFF

The following tables are condensed from more extended statements sea and Cardiff coal districts and in other collieries of Great Britain, England, February, 1875:

*Statement showing the average earnings of workmen in Swansea*

Class of labor.	Graigola.	Swansea colliery.	West Swansea.	Dunvant.
Cutters .....	\$12 40 per week .....	\$1 74 to \$2 05 per day	\$12 40 per week .....	\$55 00 per 4 weeks.
Day-workmen ..	1 88 per day .....			47 16 per 4 weeks.
Trammers .....		1 20 to \$1 36 per day	1 20 to \$1 68 per day	30 00 per 4 weeks.
Bankers .....		1 08 to 1 56 per day	7 40 per week .....	30 00 per 4 weeks.
Laborers .....	{ 88 day, outside. } { 1 20 day, inside .. }	1 85 per day .....	5 96 per week .....	30 00 per 4 weeks.
Engine-men .....	1 44 per day .....	1 32 to \$1 56 per day	11 32 per week .....	45 48 per 4 weeks.
Carpenters .....	1 38 per day .....	1 44 per day .....		30 00 per 4 weeks.
Smiths .....	1 38 per day .....	1 44 per day .....	1 44 per day .....	30 00 per 4 weeks.
Strikers .....	52 to \$0 60 per day	52 to \$0 72 per day	72 per day .....	
Weighters .....	96 per day .....	74 to 1 20 per day	68 per day .....	33 60 per month.
Hostlers .....	92 per day .....	84 to 1 32 per day	1 08 per day .....	
Firemen .....	1 88 per day .....	1 85 per day .....		
Roadmen .....	1 88 per day .....			
Tippers .....	1 20 per day .....			
Repairs .....				
Haulers .....	1 08 per day .....	78 to \$1 40 per day	7 40 per week .....	30 00 per 4 weeks.
Door-boys .....	30 per day .....	32 per day .....		
Pitmen .....	1 68 per day .....			
Stokers .....				27 88 per 4 weeks.
Hitchers .....	1 68 per day .....	1 28 to \$1 68 per day		
Overmen .....	1 88 per day .....			
Inclinemn .....	72 to \$0 80 per day	92 to \$1 92 per day		
Screeners .....	30 00 per 4 weeks ..	1 08 to 1 56 per day		
Masons .....				

Class of labor.	Graig Merthyr.	Brynwillach.	Resolven.	Emily.
Cutters .....	\$2 34 per day .....	\$1 85 to \$1 92 per day	\$23 66 per fortnight.	\$2 12 per day .....
Day-workmen ..	1 80 per day .....	1 85 per day .....	1 58 per day .....	1 80 per day .....
Trammers .....				1 80 per day .....
Bankers .....		1 50 per day .....	1 22 per day .....	1 32 per day .....
Laborers .....	1 20 per day .....		17 06 per fortnight.	1 08 per day .....
Engine-men .....	{ 1 78 per day, loco- } { motive-men. }	1 56 per day .....	1 32 per day .....	
Carpenters .....	1 20 to \$1 32 per day	1 32 per day .....	16 44 per fortnight.	1 76 per day .....
Smiths .....	1 32 to 1 56 per day	1 56 per day .....	16 44 per fortnight.	1 44 per day .....
Strikers .....	52 to 78 per day		96 per day .....	72 per day .....
Weighters .....	84 per day .....		1 20 per day .....	
Hostlers .....	80 to \$1 14 per day		15 48 per fortnight.	
Firemen .....	2 00 per day .....		1 58 per day .....	2 00 per day .....
Roadmen .....	1 20 to \$1 88 per day		1 20 per day .....	1 76 per day .....
Tippers .....			15 72 per fortnight.	
Repairs .....				
Haulers .....			17 26 per fortnight.	88 per day .....
Door-boys .....	66 per day .....		64 per day .....	48 per day .....
Pitmen .....				
Stokers .....	92 per day .....			80 per day .....
Hitchers .....		1 56 per day .....		
Overmen .....	1 72 per day .....			
Inclinemn .....	1 86 per day .....		16 44 per fortnight.	
Screeners .....	1 20 per day .....			
Masons .....	1 56 per day .....			

## COAL DISTRICTS.

in regard to the wages or earnings of workmen employed in the Swan- and were furnished by Walter Rowley, esq., mining-engineer, of Leeds,

coal district, when working full time and without restriction.

Primrose Coal Co.	Ffoy, Danybank, etc.	Crosse-Hands and California.	Duffryn Main.
\$1 80 to \$1 92 per day...	\$1 80 per day .....	\$1 82 per day .....	\$11 53 per week.
1 82 to 1 92 per day...	1 68 per day .....	1 28 per day .....	1 80 per day.
96 to 1 80 per day...	1 26 per day .....	92 per day .....	1 08 to \$1 20 per day.
84 to 1 32 per day...	1 08 per day .....	1 08 per day .....	1 00 per day.
.....	{ 1 08 to \$1 26 per day, } under ground.	1 20 per day .....	{ 1 44 to \$1 66 per day, winding.
96 to 1 20 per day...	1 20 eight-hours' turn...	1 14 per day .....	96 per day.
1 08 to 1 44 per day...	1 32 per day .....	1 20 per day .....	1 44 per day.
.....	60 per day .....	54 per day, boys...	2 00 per day.
1 08 to 1 32 per day...	35 00 per month .....	1 44 per day .....	1 32 to \$1 62 per day.
.....	1 80 per day .....	.....	1 08 to 1 36 per day.
26 to 1 08 per day...	1 32 per day, repairers .....	1 44 per day .....	60 to 1 20 per day.
32 to 60 per day...	{ 1 70 per day .....	{ 60 per day, carter- } boys.	48 per day.
.....	{ 54 to \$0 80 per day, } carter-boys.	40 per day .....	1 68 per day.
.....	32 to \$0 60 per day...	82 per day .....	1 20 per day.
.....	1 26 per day .....	.....	1 20 to \$1 44 per day.
.....	50 00 per month .....	.....	1 28 to 1 56 per day.
.....	{ 1 14 per day, head man } at screen.	.....	1 44 per day.
.....	.....	.....	.....
Morrison colliery, Tyrcanol.	Foxhole colliery, Park pit.	Foxhole colliery, Tír issa pit.	Western Merthyr.
\$25 60 per fortnight.....	\$1 58 per day .....	\$1 81 per day .....	\$3 00 per day.
1 80 per day .....	1 64 per day .....	1 77 per day .....	1 68 per day.
2 06 per day .....	1 16 per day .....	1 56 per day .....	96 per day.
1 14 per day .....	1 18 per day .....	1 80 per day .....	1 66 per day.
1 80 per day .....	80 per day .....	.....	1 32 per day.
1 56 per day .....	1 24 per day .....	1 06 per day .....	1 32 per day.
1 20 per day .....	1 16 per day .....	.....	60 to \$0 96 per day.
1 44 per day .....	1 22 per day .....	.....	1 20 per day.
.....	.....	.....	1 32 per day.
1 14 to \$1 80 per day...	1 86 per day .....	1 86 per day .....	2 00 per day.
.....	.....	.....	1 68 per day.
.....	1 64 per day .....	1 77 per day .....	1 66 per day.
.....	80 per day .....	96 per day .....	1 56 per day.
1 86 per day .....	48 per day .....	24 per day .....	1 44 to \$1 86 per day.
.....	.....	.....	66 to 72 per day.
1 80 per day .....	1 06 per day .....	1 07 per day .....	72 per day.
.....	1 22 per day .....	1 22 per day .....	1 56 per day.
.....	.....	.....	12 00 per week.
.....	.....	.....	1 44 per day.
.....	.....	.....	1 20 per day.
.....	.....	.....	1 86 pr. day, stonemen



*Statement of the average earnings of workmen in the Cardiff*

District.	Colliers.	Haulers.	Laborers.
<b>MERTHYR VALLEY.</b>			
Dowlais .....	\$14.40 per week; Brithdir, \$17.28.	\$8.64 per week; Brithdir, \$10.32.	\$6.72 per week .....
Plymouth .....	\$45.48 per 4 weeks .....	\$33.66 under-ground, \$25 above, per 4 weeks.	.....
<b>ABERDARE VALLEY.</b>			
Navigation and Deep Duffryn .....	\$42.16 per 4 weeks .....	\$1.26 per day; master, \$1.44; collier, \$1.28.	\$1.02 per day .....
Blaenagwaur .....	\$45.48 per 4 weeks .....	\$1.12 per day, surface; \$1.26, under ground; collier, \$1.26.	94 cents per day, surface and under ground.
Abercromboy .....	\$54.50 per 4 weeks .....	\$1.14 to \$1.26 per day ..	\$1.02 per day, surface; \$1, under ground.
Crombach .....	\$2.04 per day, all seasons.	\$1.23 to \$1.32 per day; foreman, \$1.68.	98 cents per day .....
Werfa .....	\$2.30 per day; \$2.40 per night.	.....	.....
Aberdare Rhondda .....	\$1.78 to \$1.96 per day ..	\$1.26 to \$1.29 per day ..	\$1 to \$1.03 per day .....
Nantmelyn .....	\$60 per 4 weeks .....	\$32.88 per 4 weeks .....	\$20.48 per 4 weeks .....
Powell Duffryn Company's pits.	\$2.50 per day .....	\$1.26 per day; surface, \$1.02.	\$1.02 per day .....
<b>RHONDDA VALLEY.</b>			
Ferndale .....	\$52.64 per 4 weeks .....	\$1.32 per day; colliers, \$1.56; surface, \$1.10.	\$1.06 per day; colliers, \$1.26.
Bodryngalt .....	\$45.52 per 4 weeks .....	\$1.32 per day; foreman, \$1.50; 9 hours.	\$1.16 to \$1.26 per day; \$1.20 to \$1.26 per night.
Tylacook .....	\$1.68 to \$2.40 per day ..	\$1.32 per day; master, \$1.60.	\$1.08 to \$1.76 per night; \$6.64 per week.
Pentre and Church .....	\$62.34 in headings; \$42.32 in stalls.	\$42.40 per 4 weeks .....	Surface, \$1.14 per day; \$32.88 under ground.
Rhondda Merthyr	\$2.46 per day .....	\$7.92 per week .....	\$6.60 per week .....
Bute Merthyr—	.....	.....	.....
Abergorho .....	\$42.06 per 4 weeks .....	\$32.88 per 4 weeks ..	\$36.12 per 4 weeks of 7 days.
2 feet 9 inches .....	\$36.30 per 4 weeks .....		
6 feet .....	\$45.08 per 4 weeks .....		
Llwynypia—	.....	.....	.....
Steam-coal .....	\$11.92 per 4 weeks .....	\$8.12 per 4 weeks .....	\$6.80 per week .....
House-coal .....	\$13.36 per 4 weeks .....	\$9.32 per 4 weeks .....	\$7.40 per week .....
Gilfach .....	\$1.20 per day .....	\$1.48 per day; surface, \$1.12.	\$1.26 per day; surface, \$1.16.
Coedcae .....	\$42.60 per 4 weeks .....	\$30.48 per 4 weeks; \$25.64 per 4 weeks, surface.	.....
Dinas Main .....	\$47.12 per 4 weeks .....	\$36.92 per 4 weeks; \$46.20 per 30 days, surface.	\$32.88 per 4 weeks .....
Llwynneelyn .....	\$1.86 per day .....	\$1.56 per day .....	\$1.56 per day .....
Gelli—	.....	.....	.....
Colliery No. 2 .....	\$2.94 in headings; \$2.84 in stalls.	\$1.48, 6 days; foreman, \$1.66.	\$1.02 per day, surface; \$1.32 under ground.
Colliery No. 3 .....	\$1.88 in headings; \$1.94 in stalls.		
Lan, not full time .....	\$10.08 per week .....		
Darrander .....	\$3 per day .....	\$1.12 to \$1.50 per day ..	\$1.20 to \$1.44 per day ..
Cilsly .....	\$1.52 per day .....	\$1.44 per day .....	\$1.08 per day .....
Powell's Llantwit .....	\$48.72 per 4 weeks .....	\$37.40 per 4 weeks .....	\$33.36 per 4 weeks .....
Llantwit and Black Vein .....	\$12.40 per week .....	\$6.48 per week; boys, \$3.60.	.....
Llantwit Red Ash Company .....	\$2.02 per day .....	\$1.34 to \$1.44 per day; surface, 80 cents.	\$1.34 per day .....
Penrhilwfer .....	\$12.10 per week .....	\$7.58 per week, under ground; \$6.56, surface.	\$7.34 per week, under ground; surface, \$5.96.
Blaenclydach .....	\$1.88 per day .....	\$1.32 to \$1.52 per day ..	\$1.12 per day .....
Maesteg Merthyr—	.....	.....	.....
Seam 1 .....	19 days, \$67.80 .....	\$1 to \$1.30 per day ..	\$1.04 per day .....
Seam 2 .....	19 days, \$60.14 .....		
Seam 3 .....	19 days, \$73.36 .....		
Credit .....	19 days, \$66.08 .....		
Bryndee .....	\$1.98 per day .....	\$1.10 per day; boys, 78 cents.	\$1.04 per day .....

coal district, when working full time and without restriction.

Tippera.	Bankmen.	Engine-men, winding.	Firemen.	Rodmen.
Brithdir, \$3.40 per week.	\$5.76 to \$8.64 per week.	\$8.40 to \$9.60 per week.	\$6.12 to \$6.96 per week.	
.....	\$28.14 per 4 weeks.	\$37.62 under ground, \$34.14 above, per 4 weeks.	\$43.94 per 4 weeks	\$29.54 per 4 weeks.
\$1.10 per day.....	\$1.20 per day.....	\$50 per 4 weeks; 8 hours. They clean, fit, and repair.	\$1.86 per 6 days; 84 cents per Sunday.	\$1.26 per day.
97 cents per day....	\$1.02 to \$1.20 per day.	\$1.46 per day; hauling, \$1.28.	.....	\$1.12 per day.
\$1.02 per day.....	\$1.10 to \$1.20 per day.	\$1.50 per day; hauling, \$1.34.	.....	\$1.34 per day.
96 cents, \$1.02, to \$1.10 per day.	96 cents to \$1.96 per day.	\$1.45, 9 days.....	\$1.72, 7 days.....	\$1.26, \$1.34, to \$1.48 per day.
.....	.....	.....	.....	.....
\$1 to \$1.06 per day..	\$1.02 per day.....	\$1.36, \$1.40, to \$1.42 per day.	\$1.68 per day.....	\$1.18 to \$1.32 per day.
.....	\$38.36 per 4 weeks.	\$58.36 per 4 weeks..	\$50 per 4 weeks...	\$31.44 per 4 weeks.
\$1.14 per day.....	\$1.23 per day.....	\$1.26 per day.....	\$1.86 per day.....	\$1.28 per day.
.....	.....	.....	.....	.....
\$1.01 per day.....	\$1.14 to \$1.26 per day.	\$1.49½ per day.....	\$2 per day.....	\$1.26 to \$1.44 per day.
\$1.16 to \$1.94, 9 hours	\$1.26 per 12 hours.	\$25.12 per 4 weeks..	.....	\$1.72 per 9 hours.
.....	.....	.....	.....	.....
\$1.14 per day.....	\$1.32 per day.....	\$1.63 per 8 hours...	\$1.84 per day.....	\$1.30 to \$1.34 per day.
\$33.26 per 4 weeks..	\$33.36 per 4 weeks.	.....	.....	.....
\$6.72 per week.....	\$10.08 per week..	\$12.04 per week; hauling, \$8.54.	\$650 per annum...	\$8.12 per week.
.....	.....	.....	.....	.....
96 cents to \$1.32 per day.	.....	\$1.72 per day; allowed 7 days extra per month.	.....	\$1.26 per day.
{ \$7.40 per week...	\$8.02 per week.....	{ \$1.33 per day, steam	.....	\$1.32 per day, ste'm.
\$1.14 per day.....	\$1.44 per day.....	\$1.56 per day, house	.....	\$1.44 per day, hou'o.
.....	.....	\$1.56 per day.....	\$2 per day.....	\$1.42 per day.
\$36.26 per 4 weeks..	\$36.68 per 4 weeks.	\$46.26 per 4 weeks..	\$50 per 26 days; \$43.84 per 24 days, night.	\$1.56 per day.
\$33.36 per 4 weeks..	\$1.23 to \$1.44 per day.	.....	\$2 per day.....	\$1.56 per day.
.....	.....	.....	.....	.....
\$1.34 per day.....	.....	\$1.76, single turn...	.....	.....
.....	.....	.....	.....	.....
\$1.22, 6 days.....	\$1.58, 7 days.....	\$1.76, 7 days; drift, \$1.54, 7 days.	.....	\$1.48, 6 days.
.....	.....	.....	.....	.....
\$1.12 per day.....	.....	\$1.56 per day.....	.....	\$1.68 per day.
\$1.02 per day.....	\$1.02 per day.....	\$1.44 per day.....	.....	.....
\$33.36 per 4 weeks..	.....	\$51.02 per 4 weeks..	\$52 per 4 weeks...	\$8.48 per week.
Foreman, \$7.40 per week.	.....	Boys, \$6 per week..	\$10.60 per week...	.....
\$1.34 per day.....	\$1.34 per day.....	\$1.50 per day.....	\$2 per day.....	\$1.71 per day.
\$6.22 per week.....	\$6.68 per day.....	\$8.36 per week.....	\$10.12 per week..	\$8.84 per week.
.....	.....	.....	.....	.....
\$1.22 per day.....	\$1.20 per day.....	\$1.38 per day.....	\$12 per week.....	\$1.56 per day.
.....	.....	.....	.....	.....
96 cents per day...	\$1.26 per day; girls, 42 to 46 cents.	\$1.06, \$1.26, to \$1.44 per day.	\$1.68 per day.....	.....
.....	96 cents per day...	\$1.02 per day.....	.....	.....

*Statement of the average earnings of workmen in the Cardiff coal*

Districts.	Hitchers.	Stokers.	Weighers.
<b>MERTHYR VALLEY.</b>			
Plymouth .....	\$28.72 per 4 weeks.....	\$21.88, under ground, per 4 weeks; \$22.02, above ground.	\$23.12 per 4 weeks.....
<b>ABERDARE VALLEY.</b>			
Navigation and Deep Duffryn .....	\$1.42 per day .....	9 hours, 98 cents; chief, \$1.02.	\$1.32, C. M.; \$1.10, Billy; \$1.10, Inop.
Blaengwaur .....	\$1.24 per day .....	\$1.02 per day .....	\$1.32 p day .....
Abercromboy .....	\$1.26 per day .....	\$1.10 per day .....	\$1.12 to \$1.32 per day..
Crombach .....	\$1.14, under ground, 9 days; \$1.02, surface, 1 day per week al- lowed.		\$1.32 to \$1.40 per day..
Aberdare Rhondda .....	\$1.26 to \$1.40 per day.	76 cents, 96½ cents, to \$1.04 per day.	\$1.14, \$1.30, to \$1.38 per day.
Nantmelyn .....	\$36.48 per 4 weeks.....	\$18.52 per 4 weeks.....	\$34.08 per 4 weeks.....
Powell Duffryn Company's pita .....	\$1.12 per day .....	\$1.02 per day .....	\$1.06 per day .....
<b>RHONDDA VALLEY.</b>			
Ferndale .....	\$1.36 per day .....	\$1.05 per day .....	\$1.32 per day .....
Bodryngalt .....	\$1.46 per 9 hours .....	\$1.32 per 12 hours .....	
Tylacoch .....	\$1.32 to \$1.44 per day..	\$1.14 per 8 hours .....	
Rhondda Merthyr .....	\$10.08 per week .....	\$8.28 per week .....	\$7.80 per week .....
Bute Merthyr .....	\$1.26 per day .....	\$1.08 to \$1.16, 28 and 29 days per month.	
Llwynypia .....	Steam, \$8.48 per week, 9 hours; house, \$12.40, piecework.	\$1.14 per day, extra cleaning fine.	96 cents per day, house; \$1.32, steam.
Gilfach .....	\$1.38 per day .....	\$1.12 per day .....	\$1.24 per day .....
Oeddae .....	\$1.62 per day; night, 66 cents.	\$1.02 per day .....	\$1.50 per day .....
Dinas Main .....	\$1.56 per day .....	\$1.26 per day .....	\$1.08 per day .....
Penrhawfer .....	\$8.24 per week .....	\$7.76 per week .....	42 cents per week .....
Blaenclydach .....			\$1.12 per day .....
Llwynellyn .....	\$1.56 per day .....		
Gelli .....	\$1.54, 6 days .....	\$1.36, 7 days .....	
Darranddu .....		\$1.38 per day .....	
Cilely .....	\$1.20 per day .....		
Powell's Llantwit .....	\$1.50 per day .....		
Llantwit and Black Vein .....	\$1.20 per day .....		\$7.20 per week .....
Llantwit Red Ash .....	\$1.12 per day .....	\$1.34 per day .....	\$1.28 per day .....
Maestig Merthyr .....	\$1.06 to \$1.30 per day..	96 cents to \$1.16 per day.	
Bryndee .....	\$1.12 per day; boys, 64 cents.	96 cents per day .....	

*district, when working full time and without restriction—Continued.*

Masons.	Horse-keepers.	Smiths.	Strikers.	Carpenters.
\$34.04 per 4 weeks .....				
9 hours, \$1.44; laborers, 92 cents per day.	\$1.08 for 6 days ...	\$1.14 to \$1.26 per day, 9 hours.	40 to 84 cents per 9 hours.	\$1.06 to \$1.20 per 9 hours.
\$1.32 per day; laborers, 94 cents to \$1.04.	86 cents per day, surface; \$1.08, under ground.	\$1.28, \$1.32, to \$1.34 per day.	76, 80, to 92 cents per day.	\$1.18 to \$1.40 per day; sawyers, \$1.12 to \$1.32.
\$1.56 and \$1.46 per day; laborers, \$1.	\$1.10 per day, under ground.	\$1.28 to \$1.34 per day	.....	\$1.28 per day; sawyers, \$1.12 to \$1.32.
.....	96 cents to \$1.08 per day.	\$1.16 to \$1.28 per day; foremen, \$1.68, 7 days.	72 to 84 cents per day.	\$1.32 per day; foremen, \$1.72, 7 days.
\$1.44 per day .....	\$1.04 per day, surface; \$1.12, under ground.	\$1.18, \$1.22, to \$1.28 per day.	72, 84, to 96 cents per day.	
\$41.92 per 4 weeks; \$30 per 4 weeks, laborers.	\$32.04 per 4 weeks	\$32.88 per 4 weeks ...	\$25.48 per 4 weeks	\$35.48 per 4 weeks; \$30 per 4 weeks, sawyers.
\$1.56 per day .....	\$1.12 per day .....	\$1.26 per day .....	90 cents per day ...	\$1.28 per day; sawyers, \$1.12.
\$1.44 per day .....	\$1.01, \$1.17, to \$1.28 per day.	\$1, \$1.06, \$1.28, to \$1.36 per day.	66 to 92 cents per day.	\$1.25, \$1.32, to \$1.41 per day; sawyers, \$1.10 to \$1.32.
.....	\$1.32, 7 days .....	\$1.62 per 9 hours .....	\$1.08 per 9 hours ..	\$1.44 per 9 hours.
.....	\$1.28 per day .....	\$1.38 to \$1.44 per day	96 cents to \$1.04 per day.	\$1.08 to \$1.20 per day; sawyers, \$1.35.
.....	\$8.40 per week .....	\$8 per week .....	\$7.44 per week .....	\$8.04 per week; sawyers, \$7.20.
\$1.56 per day; 30 days per month.	\$1.06 per day; 28 days per month.	\$1.32 per day; 25 and 26 days per month.	\$1.04 per day .....	\$1.26, \$1.32, to \$1.56 per day.
\$1.32 per day; laborers, 96 cents.	96 cents per day; in pit, \$1.12.	\$1.36 per day .....	84 cents per day ...	\$1.26 per day.
\$1.56 per day		\$1.41 per day .....	\$1.12 per day .....	\$1.34 per day.
\$1.44 to \$1.68 per day	\$1.38 per day .....	\$1.44, \$1.60, to \$1.68 per day.	84 cents to \$1.12 per day.	\$1.46 to \$1.68; sawyers, \$1.46.
\$1.80 per day .....	\$1.46 per day .....	\$1.70 per day .....	\$1.18 per day .....	\$1.70 per day.
\$8.34 per week .....	\$6.80 per week; in pits, \$7.28.	\$8.36 per week .....	\$5.72 per week .....	\$8.12 per week.
.....	\$1.34 per day .....	\$1.62 per day .....	\$1.12 per day .....	\$1.34 per day.
.....			\$1.08 per day, 7 1/2 days; foreman, \$1.16.	\$1.68 per day.
.....			96 cents per day ...	\$1.70, 6 days.
\$1.44 per day .....		\$1.28 per day .....	96 cents per day ...	\$1.44 per day.
.....	\$31.78 per 4 weeks.	\$50.96 per 4 weeks ...	\$25 per 4 weeks ...	\$1.32 per day.
.....	\$5.76 per week .....	\$9 per week .....		\$53 per 4 weeks.
.....	\$1.30 per day .....	\$1.68 per day .....	\$1 per day .....	\$7.92 per week.
.....				\$1.56 per day; sawyers, \$1.50.
.....	\$1.14 per day .....	\$1.32 to \$1.48 per day	96 cents per day ..	\$1.20 per day; sawyers, \$1.10.
.....			\$1 per day .....	\$1.14 per day; sawyers, 92 cents.

## Statement of the current wages paid to engine-men September 10, 1874.

Colliery.	Winding-engine-men.	Pumping-engine-men.	Remarks.
Monmouthshire: Tredegar Iron and Coal Company, No. 3 pit.....	88 cents		Not specified which are pumping and which winding engine-men.
Bedweedy levels and pit.....	\$1.14 to \$1.16		
Bryn Bach Incline.....	94 cents		Night and day men kept. 10 per cent. off these rates from September 1. 2 men, at \$1.17, relieve each other each hour, and go stoking, for which 12 cents per day is allowed.
Rhymney Iron Company, various pits.....	\$1.44 per day of 12 hours, slope \$1.06		
Blaenavon Iron Company's pit.....	94 cents to \$1.02, \$1.17, 10 hours per day.....		Paid 7 days per week; have to do repairs on Sundays. Under-ground steam-pump men work 8 hours per shift; remainder 12 hours.
Vespond & Co., Yareg Hill.....	\$1.04 per day of 9 hours.....		
Partridge, Jones & Co.'s colliery.....	1.56		12 hours per day, 7 days per week.
Rhos Llanfili colliery.....			
Do.....	\$1.52		Less two reductions of 10 per cent.
Prothero Trist Place.....	1.47		
Garnethill Company collieries.....	1.20, 8 turns per week.....		Less 10 per cent.
Barged Coal Company's pits.....	1.50 per day.....		
Llantrif and Black Vein Company's pit.....	1.30 to \$1.38		All paid 7½ turns for 7 days' work. Pumping-engine-men paid 48 cents per boiler for cleaning boilers.
Pat Nut and Bolt Company's pit.....	78 to 98 cents		
Swansea, Vivian & Sons My Newydd.....	\$1.58		Under ground, 89 cents per day; blocking engine, 69 cents; ventilator, 92 cents per day, and 69 cents for each boiler cleaned.
Pentle.....	1.50		
Duffryn Main Company's pit.....	1.60		Hauling \$1.27, and 1 turn per month for repairs.
Jones & Saunders, Emily and Round.....	70 cts., 55 per ct. advance, \$1.92 allowed.		
A. Baln, Hendreforgan.....			\$1.33, and 1 turn per month for repairs. \$1.14 to \$1.30, less 10 per cent. from 1st June last.
Merthyr: No. 2.....	\$1.04		
R. Crawshaw, Cyfarthfa, Cethin Castle.....	1.06		Under ground, 89 cents per day; blocking engine, 69 cents; ventilator, 92 cents per day, and 69 cents for each boiler cleaned.
Dowlais Iron Company: Castle.....	97 cents		
Buxton.....	\$1.06; No. 2 pit, 90c.....		Hauling \$1.27, and 1 turn per month for repairs.
Tunnel.....	1.30 per day, 9 days per week.....		
Aberdare Iron Company.....	2 per day, 8 hours.....		\$1.33, and 1 turn per month for repairs. \$1.14 to \$1.30, less 10 per cent. from 1st June last.
Powell Duffryn Steam Coal Company: New Tredegar Mine.....	1.16 per day, 9 days per week.....		
Lower Duffryn, Upper.....	12 per week 7 days, of 8 hours.....		Hauling \$1.27, and 1 turn per month for repairs.
Aberaman.....	\$50 per month, 28 days, of 8 hours.....		
Nixon, Taylor & Cory: Navigation.....	46.20 per month.....		\$1.33, and 1 turn per month for repairs. \$1.14 to \$1.30, less 10 per cent. from 1st June last.
Merthyr Vale.....	1 turn for shift, and 1 for cleaning and repairing boilers.....		
D. Davis & Sons: Blaengawaur.....	\$1.44; 1 turn for repairing boilers.....		Hauling \$1.27, and 1 turn per month for repairs.
Abercromby.....	1.45 per day 8 hours.....		
Aberdare Coal Company.....			

Bute.....	1.25 to \$1.20 for cleaning boilers				Hauling, \$1.24; shift, \$1.24.
M. Jones, Neathmelyn.....	1.35 per day, 9 days per week				
Rhonda.....	1.40 and 1 turn per week for cleaning boilers.				Hauling, \$1.16, and 2 turns per month for repairing, less 10 per cent. from 1st June last.
Bodryngallt.....	58.12 per month				
Glanorgars Coal Company Hivyn-ypia.....	1.39 8 hours per shift, 7 days per week.				Over-time for Sundays or night-work.
Penthiwfer.....	1.26 11 hours per shift, 6 days per week.				
Coffin & Co., Middle pit.....	1.72 per day of 8 hours, 7 turns per week.				
Powell's Gellygaer Company.....	1.38 12 hours, 7 turns per week				\$1.50 per 4 weeks for cleaning engine and winders; 90 cents extra per 4 weeks for cleaning boilers.
Powell's Llantrwist Company.....	45 per month				Without extras for cleaning.
Thomas & Griffiths.....	1.25 per 12 hours, 7 turns per week.				
Rhonda Merthyr Co.....	1.35 per day, 3 turns				Hauling \$1.10 per day, 2 turns.
Monmouthshire.....	1.29; under ground, \$1.08.				
E. D. Williams, Maesuddud.....	1.40 per day, 7 days per week				Leading engineer allowed \$6 per month for looking after pumps.
Rhoewen.....	Hauling-engine-men, \$1.40 per day				
Swansea, Governor & Company of Cop- per Mines in England.....	Incline-engine-men, \$1.46 per day				
Meadow pit.....					
Bryngarnos.....	\$1.18 per day, 24 days per month				\$2.40 per month extra for winding, and 84 cents for cleaning boilers.
Bryn.....					5 days per month repairing and raising steam; \$1.56 per month for cleaning boilers.
Cwmfelin.....	\$1.32 per day				14 days per month repairing and raising steam; 84 cents per month for cleaning.
Morgan & Thompson.....	84 cts., and \$1.02 for each boiler cleaned.				
Merthyr.....	\$1.44 per day; allowance for boilers, 2 days per week, 60 cents.				Winders allowed 9 days per week, pumpers 7.
Plymouth Iron Company pits.....					
Merfarc.....	\$1.20 per day, 8 days' pay for 6 worked.				
Heath, Evans & Co.....	84 to 90 cents per week, 9 hours per day.				Cleaning boilers, 32 cents; cleaning tube, 48 cents extra.
Yorkshire.....					
Bowers Allerton Collieries.....					
Staffordshire.....					
Somersetshire.....					
Rodstock Collieries.....	96 cents per day of 10 hours.				3 cwt. of coal allowed per week.



## YORKSHIRE.

Statement showing advances in wages from 1871 to March, 1873, at three pits of one of the principal collieries in the West Riding of Yorkshire.

Number of pit, and date.	Coal-getting.	By-work.	Boys.	
			Hurriers, average weekly wages.	Posty-drivers, maximum daily wages.
Pit No. 1.	Per ton.	Per day.		
January, 1871 .....	£0 37	£1 13	£2 90	£0 40
January, 1872 .....	39	1 21	3 43	43
January, 1873 .....	52	1 67	3 69	97
March, 1873 .....	61	1 92	4 52	1 09
Pit No. 2.				
January, 1871 .....	38	1 13	3 35	57
January, 1872 .....	41	1 25	3 43	44
January, 1873 .....	59	1 67	4 38	65
March, 1873 .....	67	1 92	6 05	75
Pit No. 3.				
January, 1871 .....	31	1 13	.....	40
January, 1872 .....	39	1 25	.....	44
January, 1873 .....	48	1 67	.....	65
March, 1873 .....	57	1 92	.....	97

In May, 1872, riddles ceased to be used at all the pits. The benefit accruing to the colliers from this change cannot be set down at less than 1*d.* per ton. One penny per ton must, therefore, be added to the apparent advance.

## EARNINGS OF COLLIERIES IN ENGLAND.

In the Sheffield district the colliers earn from £3 5*s.* to £4 a week, working only for five days. There are colliers in the neighborhood of Huddersfield who are now earning as much as £1 a day. In East Worcestershire the wages range from 8*s.* to 12*s.* a day. In Wales and the west wages are lower as a rule; in the north they are higher. Taking the average of the best coal-districts, it is obvious that a collier can easily earn from 8*s.* to 10*s.* any day he wishes to work. Price of coal in London 40*s.*—*London Telegraph*, September, 1873.

Under date of October 25, 1874, Walter Williams, esq., writes:

Colliers' wages are nominal; do not represent their earnings, which vary from 5*s.* 6*d.* to 8*s.* per day of eight hours, except in portions of Wales, where they are less by 15 per cent.; but in iron-making districts, now, colliers in thin mines or common coal-works do not get more than 28*s.* to 30*s.* per week; steam-coal and house-coal from 35*s.* to 40*s.* per week, all working eight hours for a day's work; common laborers earn 3*s.* to 3*s.* 6*d.* per day; skilled, 4*s.* to 4*s.* 6*d.*; brick-layers, stone-masons, 5*s.* 6*d.* to 6*s.* 6*d.* per day, (nine hours;) painters, 7*s.*; carpenters, 5*s.* 6*d.* to 6*s.*; smiths, 5*s.* 6*d.* to 6*s.*; locomotive-engine drivers, 7*s.* 6*d.*; stationary-engineers, 4*s.* 6*d.* to 6*s.* per day.

*Wages earned by workmen engaged in the Durham coal-fields, January, 1875.*

Overmen, £2 to £2 15*s.* per week.

Deputy overmen, 5*s.* 6*d.* to 6*s.* per day of eight hours.

Coal-hewers are paid by the score of twenty-one tubs, which vary from 6 cwt. to 12 cwt. each, according to the different seams of coal worked; their average earnings are from 5*s.* 6*d.* to 6*s.* 9*d.* per day of from five to seven hours.

Laborers, under ground, 4*s.* to 5*s.* 6*d.* per day of eight hours.

Pit-engine-men, 5*s.* to 5*s.* 6*d.* per day of eight hours.

Laborers, at bank, 3*s.* 4*d.* to 4*s.* per day of ten hours.

Mechanics, 4*s.* to 5*s.* per day of nine hours.

In addition to those wages, it is the custom at nearly all collieries to provide houses for their workmen. The houses vary very much in quality at different collieries, but, together with fire-coal, may be taken at £15 to £20 per annum addition to workmen's wages.



## ENGLISH MINING IN 1872.

Mr. Robert Hunt, keeper of the mining-records for Great Britain, has made the following returns of English mining in the year 1872:

Minerals.	No. of mines.	Quantities.	Value.
		<i>Tons. Cwt.</i>	
Coal.....	3,001	123,497,316	£46,311,133
Iron-ore.....	266	16,584,857	7,774,874
Copper-ore.....	117	91,183	443,738
Tin-ore.....	102	14,266	1,246,135
Lead-ore.....	455	83,968 3	1,146,165
Zinc-ore.....	63	18,549 12	73,951
Iron pyrites, (sulphur-ores).....	35	65,916 3	39,470
Arsenic.....	15	5,171 15	17,964
Wolfram.....	3	88 5	983
Cobalt.....	1	1	20
Manganese.....	3	7,773	38,865
Fluor-spar.....	1	80 12	40
Ochers, umbers, &c.....	5	3,326 15	8,287
Bismuth-ore.....	1	2	...
Chloride of barium.....	1	65	130
Barytes.....	25	9,099 17	7,078
Clays, fine and fire, (estimated).....		1,200,000	450,000
Other earthy minerals, (estimated).....			650,000
Salt.....		1,309,497 10	654,748
Coprolites, (estimated).....		35,000	50,000
Total value of the minerals produced in the United Kingdom.....			58,913,541

*Metals obtained from the ores above enumerated in the United Kingdom in the year 1872.*

Description of metal.	Quantities.	Value.
Pig-iron..... tons..	6,741,939	£18,540,304
Copper..... do ..	5,703	583,238
Tin..... do ..	9,560	1,430,900
Lead..... do ..	69,455	1,209,115
Silver..... ounces..	628,920	147,320
Zinc..... tons..	5,191	118,076
Other metals, (estimated).....		2,500
Total value of metals produced from the ores of the United Kingdom.....		22,070,143

The total value of the metals produced, coal and other minerals raised, in the year 1872: metal, value of, as above, £22,070,447; coal, ditto, £46,311,447; minerals, earthy, &c., £1,811,826; total, £70,193,416. The increase in total value, amounting to £12,871,523, is chiefly due to the additional cost of "getting" each ton of coal. To the 3,001 coal-mines should be added the product of 150 others not included..

## RISE OF WAGES IN THE UNITED KINGDOM.

The tables on pages 243 to 278 give the wages or earnings of work-people in Great Britain which were paid in 1871 and which, with the exception of work in iron-mills and in coal-mines, do not in general differ greatly from those which ruled in 1872 and subsequent years. The strikes in the engineering and other trades were chiefly for diminished hours and not for an increase of per-diem wages. The reduction of hours demanded was, in most cases, from ten to nine hours per day, or from fifty-nine to fifty-four hours per week, an actual advance in the cost of labor of about 10 per cent. The rise in wages which originated mainly in the coal and iron industries, soon extended to nearly all other branches. In most trades there was an advance in the cost of labor

more or less marked, in addition to the increase caused by the reduction in the hours of labor.

The various advances and reductions in wages which have taken place since 1871 in the iron mills and furnaces and in the collieries, appear in the pages immediately preceding, while on the following pages the rates obtaining in 1872 when the author visited the manufacturing districts of Great Britain, and at subsequent periods, are presented. While the rates of wages indicated in the following tables vary but little from those of 1871, the respective hours of labor at the different periods must be regarded, whether for fifty-nine hours in the earlier, or from fifty-four to fifty-one hours in the later periods. Those in the later years show, it is true, the extent of the weekly earnings of workmen, unless they labor after hours, which is unusual; but whether compared with similar data at another period or in other countries where the hours of labor were or are greater, the increased cost of labor per hour in recent years is indicated in the tables.

#### RATES OF WAGES IN 1873—MECHANICAL TRADES.

*Rates of wages paid per week in the kingdom of Great Britain for different kinds of labor.*

Trades.	Per week in U. & gold.	Trades.	Per week in U. & gold.
Engineers and machinists.....	\$8 22	Ship-joiners.....	\$8 22
Blacksmiths, (general).....	8 22	Iron-molders.....	8 22
Carpenters and joiners.....	8 22	Pattern-makers.....	8 22
Stone-masons.....	8 22	Puddlers.....	8 71
Bricklayers.....	8 22	Smelters.....	8 71
Carriage and wagon makers.....	7 26	Stone-quarry men.....	5 12
Saddle and harness makers.....	5 80	French polishers.....	8 22
Tin-men and tinnern.....	7 26	Printers.....	7 74
Painters.....	8 22	Book-binders.....	8 22
Coppersmiths.....	8 22	Cabinet-makers.....	8 22
Angle or iron smiths.....	8 22	Upholsterers.....	8 22

The above statement, furnished by a gentleman in Liverpool, gives a fair average of the rates of wages paid throughout Great Britain for the different kinds of skilled labor indicated. But inasmuch as the same wages, \$8.22 per week, is given as the rate paid to carpenters, cabinet-makers, and painters, as well as to blacksmiths, masons, iron-molders and machinists, who usually receive higher wages, it is not so accurate as the tables on the two following pages, which show the various rates paid to skilled workmen in mechanical and building trades in each of the principal towns of the United Kingdom.

## BOILER-MAKERS AND IRON-SHIP BUILDERS.

Table showing the weekly wages paid to boiler-makers and iron-ship builders in some of the principal towns and cities of the United Kingdom during the year 1873.

[Hours of labor per week, 54, except in Aberdeen, Dundee, and Glasgow, where they are 51 hours. Average of 51½ hours per week through the year.]

Localities.	Smiths.	Platers.	Riveters.	Calkers.	Holders-up.*
Aberdeen		88 65	85 81 to 86 05	85 81	84 66
Barrow-in-furness	88 73 to 89 16	88 23 to 88 73	7 74 to 8 23		85 81 to 86 05
Belfast	8 73 to 9 16	8 23 to 8 73	7 96	6 99	
Birkenhead†	8 73 to 9 16	8 73 to 9 16	7 26 to 7 74	7 26 to 7 74	5 81 to 6 17
Bradford	8 73	7 74		7 02	6 29
Bristol†	9 19	8 73	7 74	7 26	5 56
Bury	9 19	8 73	8 23		7 74
Chester	9 19	8 73	7 74		5 81
Cork	9 44	8 71	7 96	6 74	4 60
Crewe	7 99 to 8 25	7 99 to 8 71	7 50 to 7 74		6 05
Derby	8 71	8 71	6 78		5 32
Dublin†	8 71 to 9 19	8 23 to 8 71	7 75		
Dundee	7 02	7 02	6 53 to 6 77	6 53 to 6 77	4 84
Ebbro Vale	7 99	7 99	6 77 to 7 99		5 56 to 5 81
Glasgow ship-yard	7 26	7 75	6 80	6 80	4 12
Glasgow boiler-shop	8 47 to 9 19	8 22 to 8 47	7 26 to 7 35	7 02 to 7 35	4 36 to 5 56
Greenwich ship-yard	10 10	10 16	8 23	7 26	6 77
Greenwich boiler-shop	10 16	10 16	7 96	7 26	6 29
Huddersfield	8 23	8 23	7 96		5 81
Hull boiler-shop	10 12	9 19	7 74	7 26 to 7 74	6 29
Hull ship-yard	10 12	2 19	7 74	7 50 to 7 74	6 29
Leeds boiler-shop	9 19 to 9 68	8 71 to 9 19	6 29 to 7 74		5 32 to 6 29
Liverpool boiler-shop	9 19 to 9 68	8 71 to 9 19	7 26 to 7 74	7 26 to 7 74	6 05 to 6 29
Liverpool ship-yard	8 71 to 9 19	8 71	7 26	7 26	5 81
London boiler-shop	8 71 to 10 65	8 71 to 10 16	7 26 to 9 19	6 77 to 7 99	4 84 to 6 29
London ship-yard	9 68 to 10 16	9 19 to 9 68	7 74 to 8 71	7 99	5 81 to 6 29
Manchester	9 68	9 19	8 23		7 96 to 7 75
Newcastle-upon-Tyne boiler-shop					
Newcastle-upon-Tyne ship-yard	7 75 to 8 71	8 23 to 8 71	7 27 to 7 75	6 77 to 7 75	5 32 to 6 29
Nottingham	7 99	7 99	7 75	7 02	6 29
Portsmouth	9 19	8 71	7 27		5 81
Preston boiler-shop	9 19	9 19	7 99		5 81
Preston ship-yard	9 19	8 71	7 75	7 75	5 81
Rochdale	9 19	9 19	7 75	7 75	5 32
Sheffield	7 99 to 9 68	8 71 to 9 19	7 75 to 8 23	6 77 to 7 27	6 05 to 6 53
Wigan		9 19	7 75		7 02
Wolverhampton	8 71	8 23	6 53		5 56
Woolwich	9 44	8 71	7 75		5 81
York		7 99	7 50		5 81
Average in above places.	8 27	8 64	7 48	6 82	5 92

\* In some shops holders-up are employed on the piecework system.

† Working-hours from light till dark in winter.

## CARPENTERS AND JOINERS.

Table showing the weekly wages of carpenters and joiners, with the number of working-hours per week, in the following principal towns of the United Kingdom during the year 1873.

Towns.	Wages per week.*		Hours of labor per week.		Towns.	Wages per week.		Hours of labor per week.	
	Summer.	Winter.	Summer.	Winter.		Summer.	Winter.	Summer.	Winter.
Aberdeen	£6 42	£6 42	51	51	Kirkcaldy	£6 93	£6 93	51	51
Aberpenny	6 49	6 49	54	54	Leeds	7 06	7 06	50	50
Aldershot	7 26	7 26	56½	58½	Leicester	7 06	7 06	54	54
Ayr	6 93	6 93	51	51	Liverpool	6 32	6 32	55	55
Belfast	7 62	7 62	54	54	London	9 53	9 53	58½	59½
Birkenhead	8 39	8 39	55	55	Leith	7 71	7 71	51	51
Birmingham	8 17	7 63	54	50½	Londonderry	6 29	6 29	60	60
Bolton	7 86	7 86	51	51	Macclesfield	7 42	6 38	54½	46½
Bradford	7 24	7 24	40½	48½	Manchester	6 79	7 58	54½	47
Bristol	7 63	7 13	54	50½	Newcastle-on-Tyne	7 56	7 56	50	50
Bury	7 59	7 59	54	54	Nottingham	7 62	6 63	54	47
Chester	7 26	7 26	55½	55½	Oxford	7 08	7 08	54	54
Coventry	7 26	7 26	56½	56½	Plymouth	6 17	6 17	56½	56½
Crews	6 77	6 77	54	54	Portsmouth	6 53	6 53	58½	58½
Cork	7 26	7 26	60	50	Preston	6 77	6 77	49½	49½
Derby	7 34	7 02	56	53½	Perth	7 20	7 20	51	51
Dublin	8 23	8 23	60½	60½	Roehdale	7 62	6 91	54	49
Dumfries	6 17	5 81	51	48	Rugby	7 14	7 14	56½	56½
Dundee	7 45	7 45	51	51	Sheffield	7 56	7 56	50	50
Dunfermline	7 29	7 29	51	51	Southampton	6 53	6 53	58½	58½
Ezter	6 26	6 26	56½	56½	Stafford	6 83	6 83	56½	56½
Edinburgh	7 20	7 20	51	45	Stockport	7 96	7 96	54½	54½
Gloucester	6 26	6 26	56½	56½	Sligo	6 77	6 77	60	60
Greenwich	9 11	9 11	56½	56½	Stirling	6 68	6 68	51	51
Glasgow	7 71	6 90	51	45	Wolverhampton	7 62	7 62	54	54
	to				Woolwich	9 11	8 23	56½	51
	8 23				Worcester	7 08	6 61	54	50½
	7 20				Waterford	6 29	6 29	60	60
Greenock	8 23	7 20	51	51		3 63	3 63		
	to				Wick	to	to	57	57
	6 77	6 77	50	50		4 36	4 36		
Halifax	6 53	6 53	50	50	York	6 94	6 93	53½	53
Huddersfield	6 53	6 53	57½	57½					
Kidderminster	6 53	6 53	51	51					
Kilmarnock	7 20	7 20	51	51	Average	7 24	7 10	59	54

\* Although here computed by the week, the rate of wages is usually fixed either by the hour or by the day.

## STONE-MASONS.

Table showing the wages of stone-masons per hour and the number of hours worked per week in some of the principal towns of Scotland during the year 1874.

Localities.	Wages per hour.	Hours worked per week.	Localities.	Wages per hour.	Hours worked per week.
	Cents.			Cents.	
Aberdeen	13	51	Kilmarnock	16	51
Airdrie	17 to 18	51	Leith	15	51
Ayr	15	51	Montrose	12½	51
Dunbarton	16	51	North Berwick	16 to 17	51
Dumfries	14	51	Perth	14	51
Dundee	16 to 17	51	Saint Andrews	12 to 13	51
Edinburgh	15	51	Stirling	15	51
Glasgow	16	51			
Greenock	17	51	Average	15.06	

In many of the smaller towns the hours of labor are longer and the wages lower.

## PRINTERS' WAGES IN ENGLAND.

In London the established wages of either compositors or machine-men are 36s. (\$8.71) for fifty-four hours' work. There are always a few men, not exactly overseers, who will have, perhaps, five to eight shillings (\$1.21 to \$1.93) more than the established wages, men of quick and steady habits, who are worth the extra money.

Piecework is paid per thousand ens. The prices paid per thousand vary, according to the description of work—close manuscript and leaded manuscript, and also reprint matter leaded and reprint matter close. The prices are from six to seven pence (12 to 14 cents) per thousand. English to minion and nonpareil take one-half penny (1 cent) rise per thousand, and smaller than nonpareil a higher rise, according as the font may be. When books are stereotyped or electrotyped, one-fourth to one-half penny of rise on the above, as spaces being high or low determine.

*Piece-hands.*—Good or average men can make, easily, from thirty-six to forty shillings, (\$8.71 to \$9.68.) Inferior hands run from twenty to thirty shillings, (\$4.84 to \$7.26.) Some of them are poor hands, those that can only make twenty shillings, (\$4.84.) Superior hands can make from forty-five to fifty shillings, (\$10.89 to \$12.10.)

In the provinces, in some of the large towns, such as Manchester, thirty-three shillings (\$7.98) is the established wage. Piece prices, consequently, a shade lower; but all other things much in the same way as in London, &c. In most of the English provinces earnings are about thirty shillings (\$7.26) per week.

## SCOTLAND.

The established wages in principal towns, twenty-seven shillings and six-pence, (\$6.65,) for fifty-four hours, for machine-men and compositors. Best class of men are generally on a wage of thirty shillings, (\$7.26.) Machine-men, all nearly, thirty shillings. Piecework is paid at six-pence (12 cents) per thousand ens; all descriptions of work, except very wide-leaded books, which are one-fourth penny ( $\frac{1}{2}$  cent) per thousand less. Stereotyped and small fonts the same as in London.

*Piece-hands.*—Good average men can easily make from twenty-eight to thirty shillings, (\$6.78 to \$7.26,) and where very diligent and attentive, thirty-five to forty shillings, (\$8.47 to \$9.68,) and sometimes more, but they seldom keep this up.

Boys, in case-room, after three or four years, can earn about ten shillings (\$2.42) per week, if they are active; and their earnings increased to fourteen shillings (\$3.33) a week, during the seventh and last year of their apprenticeship. Many of them, from the fourth year, get the half of their earnings.

In the machine-room, or press-room, they start with seven or eight shillings, (\$1.69 to \$1.95) per week, which gradually rises to, say, sixteen shillings, (\$3.87,) during the last weeks of apprenticeship. Little boys, not apprentices, from four to seven shillings, according to work; some as high as ten shillings—pointers.

Girls in machine-room, earn from four to eleven shillings, (96 cents to \$2.66,) according to ability. Those earning eleven shillings per week are they who point the sheet on the second side of platen machines.

## MECHANICAL AND FARM LABOR IN ENGLAND.

Statement showing the rates of wages paid for mechanical and farm labor in the year 1874.

Mechanics.	Durham.	Middlesex.	Nottingham.
Blacksmiths.....	\$1 30 per day ..	\$1 20 to \$1 68 per day...	\$0 15 per hour.
*Bricklayers and masons .....	1 44 per day ..	1 44 to 1 92 per day ..	16 per hour.
Cabinet-makers .....	1 32 per day ..	1 44 to 1 92 per day ..	14 per hour.
Carpenters .....	1 32 per day ..	1 44 to 1 68 per day ..	15 per hour.
Coopers .....	1 10 per day ..	1 68 to 1 92 per day ..	17 per hour.
Miners .....	1 46 per day ..	Generally by the job.	1 21 per day.
Machinists .....	1 36 per day ..	1 68 to \$1 92 per day ..	1 45 per day.
Painters .....	1 32 per day ..	1 44 to 1 68 per day ..	14 per hour.
Plasterers .....	1 42 per day ..	1 44 to 1 68 per day ..	17 per hour.
Shoemakers .....	90 per day ..		1 09 per day.
Stone-cutters .....	1 44 per day ..	1 44 to 1 92 per day ..	16 per hour.
Tailors .....	1 20 per day ..	1 20 to 1 68 per day ..	1 21 per day.
Tanners .....		1 44 to 1 92 per day ..	4 35 per week.
Tinsmiths .....	1 20 per day ..	1 44 to 1 92 per day ..	1 21 per day.
Wheelwrights .....	1 32 per day ..	1 44 to 1 92 per day ..	14 per hour.
<b>FARM-LABOR.</b>			
Experienced hands... { Summer..	84 per day ..	2 40 to 3 84 per week.	4 84 to \$5 56 per week.
{ Winter..	64 per day ..	2 40 to 2 88 per week.	4 84 to 5 56 per week.
Ordinary hands .....	64 per day ..	1 92 to 2 88 per week.	4 35 per week.
{ Summer..	40 per day ..	1 92 to 2 40 per week.	4 11 per week.
{ Winter..			
Common laborers at other than farm-work, for six days only ...	70 per day ..	32 per day ..	84 per day.
Female servants.....	4 86 per month	40 00 to \$100 00 per year.	38 72 to \$48 40 per year.
<b>PRICE OF BOARD.</b>			
October, 1874. { For workmen ....	3 40 per week.		2 90 to 3 39 per week.
{ For workwomen...	2 40 per week.		1 45 to 1 94 per week.

\* Working five days only, and for the sixth day, 72 cents.

In Saint Helens, Lancaster, ordinary farm-laborers receive 84 cents per day.

## CHIEF MANUFACTURING TOWNS OF GREAT BRITAIN.

In previous pages statements have been presented showing the wages or earnings of work-people in various mills and factories of the United Kingdom, classified by industries. The prices of factory-labor therein given were chiefly those prevailing in 1871, and which were kindly furnished to the author by officials of the British government. It is now proposed to present statements, classified by towns, showing the rates of wages, which were obtained personally by the author in the year 1872 and by consuls of the United States and others at subsequent periods.

In presenting the prices of labor in the chief towns of the kingdom it is neither intended to submit historical statements in regard to the rise, the progress, or the present condition of what may be regarded as the leading industry of each town or manufacturing center, nor to consider the causes which rendered each place eminent in its peculiar branch of industry. Interesting as such a historical and statistical sketch might be of the manufactures of Manchester and Birmingham, of Leeds and Sheffield, of Bradford and Nottingham, of Glasgow and Dundee—and it must be confessed that the temptation to pursue such a course is unusually strong—there is neither time for its preparation nor space in these pages for its presentation. A passing allusion to the chief industries of the above and other manufacturing towns of Great Britain is all that is necessary; any more detailed statement would be a reflection upon the intelligence of the larger part of Anglo-American readers. Indeed, the leading productions of some of these manufac-

turing centers are so well known that towns in the United States largely engaged in similar industries are frequently designated as the counterparts of the former. Thus, Lowell is the Manchester, Pittsburgh the Birmingham, and Paterson the Macclesfield of America; while, owing to the recent rapid growth of iron-ship-building in Wilmington, Chester, and Philadelphia, the river Delaware is designated as "the Clyde of America."

#### LIVERPOOL.

Population in 1871, 493,405.

Liverpool, the principal sea-port of England, situated on the river Mersey, four miles above its mouth, is celebrated for its great commercial importance and its immense trade with every part of the world. The vast amount of English merchandise which finds a market in the United States is chiefly shipped from this port, the value of which, in the year 1871, reached £26,310,743, (\$128,041,230.) In the beginning of the eighteenth century Liverpool possessed only one dock, but now its magnificent and commodious docks cover a space of 400 acres. Ship-building,\* both iron and wooden, is extensively carried on at Birkenhead, on the opposite side of the river, where the engineering works of Messrs. Laird and others are situated. The manufactures of the town of Liverpool, however, are but limited, while the products of the consular district, which, during the year ended September 30, 1872, were exported to the United States amounted to nearly \$38,000,000, as indicated by the following table :

#### EXPORTS TO THE UNITED STATES FROM LIVERPOOL.

*Statement showing the value of exports to the United States from the Liverpool consular district during the year ended September 30, 1872.*

Articles.	Value in U. S. gold.*	Articles.	Value in U. S. gold.*
Iron .....	\$7,052,940	Rags, waste paper, &c. ....	\$350,212
Steel.....	1,078,650	Fruit.....	403,715
Hardware .....	87,515	Beer.....	262,450
Tin.....	468,298	Coal.....	222,989
Tin-plates.....	12,949,396	Earthenware.....	107,146
Wire-rope.....	127,692	India rubber.....	189,244
Wool.....	3,840,763	Slates.....	64,749
Chemicals.....	3,215,769	Miscellaneous.....	3,487,032
Leather and skins.....	1,539,439		
Salt.....	941,507	Total.....	37,860,993
Dry goods.....	944,466		

\* Although the rates of wages and cost of subsistence in the United Kingdom which appear on preceding and subsequent pages are computed at the rate of \$4.84, United States gold, per pound sterling, and the shilling at 24 cents, yet, in the above and other tables of exports from manufacturing towns, the pound sterling is computed at the rate now established by law, viz, \$4.8665.

#### RATES OF WAGES IN LIVERPOOL.

*Mechanics and skilled artisans, in October, 1873.*—The wages of engineers, boiler-makers, shipwrights, mast and block makers, printers

\* **SHIPBUILDING ON THE MERSEY IN 1873.**—The five principal ship-building firms on the Mersey turned out twenty-nine steamers and seven iron sailing-ships during the year 1873, the total tonnage of the steamers amounting to 33,507 tons, and of the sailing-ships 12,164 tons. Messrs. Laird Brothers built eleven steamers, whose tonnage amounted to over 13,000 tons, and six gun-boats, aggregating nearly 2,000 tons. Messrs. Bowdler, Chaffer & Co. built seven steamers, amounting to 7,000 tons. Messrs. Thomas Royden & Sons launched five screw-steamers of the total amount of 5,407 tons, and four iron sailing-ships, aggregating 6,764 tons. R. & J. Evans & Co. built four steamers and one iron sailing-ship, amounting to 7,900 tons. Messrs. Potter & Hodgkinson built two steamers and two sailing-ships of iron, aggregating 5,600 tons.

and lithographers, and of some of the men in the building trades, as painters, joiners, masons, plumbers, &c., vary from 5s. 6d. to 6s. (\$1.33 to \$1.45) per day of nine working-hours, or from 33s. to 36s. (\$7.98 to \$8.70) per week of fifty-four hours.

The wages of pressmen in oil-mills, of the higher class of workmen in chemical works, sugar-refineries, &c., vary from 27s. 6d. to 32s. 6d. (\$6.25 to \$7.86) per week, the hours varying from ten to twelve per day.

The wages of day laborers in Liverpool vary from 21s. to 25s. (\$5.08 to \$6.05) per week. In some of the smaller towns they range from 18s. to 22s. 6d., (\$4.35 to \$5.44.)

*Domestic servants.*—The wages of housemaids and waitresses vary from £10 to £20 (\$48.40 to \$96.80) per annum, (of course board found;) of cooks from £12 up to £40, (\$58.08 to \$193.60;) of gardeners, £1 to £1 10s. (\$4.84 to \$7.26) per week, living out of the house at their own cost. Footmen and coachmen's wages vary too much to give any fixed rates.

#### WAGES IN ENGINEERS' SHOPS, IRON-WORKS, ETC.

The following statement, showing the rates of wages paid by the general association of master engineers, ship-builders, and iron and brass founders, was kindly furnished by Colonel Clay, of Clay, Inman & Co., proprietors of the Birkenhead Forge, under date of October 29, 1873:

*Statement showing the weekly rates of wages paid to workmen in different classes of work in the district of Liverpool during the second quarter of the year 1873.*

Class of work.	Employers.				
	No. 7.	No. 9.	No. 11.	No. 12.	Average.
Smiths.....	\$8 32	\$8 32	\$8 46	\$7 82	\$8 23
Strikers.....	5 42	5 60	5 08	5 18	5 30
Angle-iron smiths.....	8 94	9 19	8 46	8 53	8 70
Strikers.....	5 32				5 32
Platers.....	8 32	8 71	9 19	8 50	8 43
Helpers.....	4 64				4 64
Riveters.....	7 74	7 50	7 74	7 50	7 62
Holders-up.....	7 74	6 29	6 29	6 07	6 60
Turners.....	7 98	8 32	8 24	8 12	8 16
Coppersmiths.....				8 11	8 11
Brass-finishers.....		7 74	7 62	7 86	7 74
Fitters and erectors.....	7 86	7 62	7 62	7 80	7 72
Millwrights.....			7 74	7 74	7 74
Planers.....	6 77	7 50	7 50	6 53	7 08
Shapers.....	6 77	6 77		6 33	6 61
Slotters.....	6 77	7 26	6 77	6 05	6 71
Drillers.....	5 94	6 05	5 80	5 92	5 92
Iron-molders..... { Sand.....		8 71	8 71	8 71	8 71
Iron-molders..... { Loam.....		9 68	9 43	9 43	9 51
Brass-molders.....		10 16	8 83	8 01	9 00
Core-makers.....		7 50	7 01	7 32	7 28
Pattern-makers.....	8 47	8 32	8 22	8 10	8 23
Carpenters and joiners.....	7 98	8 32	7 50	7 32	7 78
Grinders.....	7 56	8 47	7 50	7 08	7 65
Engine drivers and tenters.....	6 05	5 32	5 08	5 56	5 50
Calkers.....	6 11				6 11
Foundry-dressers.....		6 29	6 29	6 29	6 29
Foundry-laborers.....	4 84	5 32	5 32	4 69	5 04
Ordinary laborers.....	4 50	4 35	4 59	4 69	4 55
Average wages of skilled workmen in all the shops.....					7 70



## WAGES AT THE CANADA WORKS, BIRKENHEAD.

*Average rates of wages paid to skilled workmen at the Canada Works, Birkenhead, in the sixteen years from 1854 to 1869, inclusive.*

Year.	Fitters.	Turners.	Coppersmiths and Braziers.	Grinders.	Smiths.	Boiler-smiths.	Bricklayers.	Saddlers and belt- makers.	Forgemen.	Painters.	Molders.	Joiners and pat- tern-makers.	Boiler-makers.	Average.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1854.....	29 0	29 4	31 6	27 0	31 0	34 0	34 0	28 0	36 6	24 0	32 0	28 0	31 6	30 34
1855.....	28 3	30 3	30 10	27 0	31 5	34 0	34 0	27 0	37 0	23 0	31 6	28 6	31 0	30 34
1856.....	29 0	31 3	28 10	27 0	32 0	35 0	34 0	28 0	36 0	24 0	33 0	29 0	30 6	30 5 14
1857.....	30 6	33 9	29 0	24 0	31 0	34 0	34 0	28 0	33 6	26 0	33 0	27 6	32 6	30 44
1858.....	28 10	31 6	28 0	24 0	30 0	32 6	34 0	27 0	.....	26 6	32 0	27 6	32 0	29 6 6
1859.....	27 6	31 0	30 0	22 0	29 6	33 0	34 0	26 0	.....	25 0	31 6	27 0	30 6	29 1
1860.....	27 6	32 0	31 0	26 0	30 3	33 8	34 0	27 0	33 0	27 0	31 6	28 6	31 0	30 3
1861.....	27 0	31 6	29 6	25 6	30 0	33 0	34 0	27 0	36 0	26 0	32 6	28 0	31 6	30 3
1862.....	27 10	32 0	28 6	27 0	29 6	32 6	34 0	27 0	35 6	25 6	32 0	27 6	31 0	30 2
1863.....	28 0	31 6	28 1	27 6	31 0	33 0	34 0	27 0	35 0	25 6	32 6	28 6	31 6	30 4
1864.....	28 0	31 6	31 6	27 6	30 6	33 0	34 0	27 0	34 6	25 8	33 0	29 0	31 3	30 6
1865.....	28 1	31 5	31 7	28 0	30 3	34 6	34 0	25 6	33 0	26 6	33 0	30 0	31 9	30 11
1866.....	31 0	31 6	32 6	28 6	31 9	36 0	34 0	24 0	32 9	27 6	32 7	30 6	34 2	31 34
1867.....	32 6	31 0	32 0	32 0	32 9	37 0	34 0	24 0	33 0	24 6	34 6	31 4	32 0	31 7
1868.....	31 0	30 0	32 0	26 6	31 6	36 0	34 0	25 0	32 6	24 0	34 2	30 9	32 0	30 84
1869.....	30 0	29 4	30 9	23 0	30 0	36 0	34 0	26 0	32 6	23 0	31 6	30 0	32 0	29 10
Average in U.S.gold.	\$7 02	\$7 53	\$7 34	\$6 45	\$7 44	\$8 26	\$8 23	\$6 07	\$7 27	\$6 11	\$7 86	\$7 11	\$7 17	\$7 24

The above table, extracted from Mr. Brassey's "Work and Wages," exhibits but slight variations in wages during the sixteen years prior to 1870. The average of the thirteen different occupations for the years 1854 to 1857 and from 1860 to 1864 was almost identical, while in 1869 there was a slight decrease.

Nor does the general average in the sixteen years, viz, 29s. 11d. (\$7.24) vary greatly from the rates in 1872, when the author visited the works, or from those of 1873, as shown in the table on the preceding page, in which the wages of all the skilled workmen averaged 31s. 10d., (\$7.70), an advance of but 1s. 11d. (46 cents) per week, or about 6 per cent. The increase in the cost of labor, however, is chiefly owing to the reduction in the hours of labor, which, as before stated, is equivalent to about 10 per cent.

The weekly wages paid in the above works, as stated by Mr. Laird, of Laird & Brothers, October 14, 1872, were as follows: turners, 30s. to 32s.; riveters, 34s. to 36s., but do not work all the time; ordinary machinists, fitters, &c., average 26s.; pattern-makers, 34s. to 36s.; laborers from unskilled to skilled, 18s. to 23s.; ship-carpenters, 6s. per day in shop; 7s. outside.

Mr. Laird stated the advance in the rates of wages paid in 1872 over those of 1867 was 10 per cent. on the higher and 15 per cent. on the lower rates. From 800 to 900 men were at that time employed in the works.

## BIRMINGHAM.

Population in 1871, 343,787.

In addition to the various articles of iron manufacture for which Birmingham was, at an early period, celebrated, brass goods began to be produced about the seventeenth century. This branch now forms one of the most important in the town. Every description of article in this

metal is produced in immense quantities. Metallic bedsteads in brass and iron, lamps, chandeliers, gas-brackets, cornice-poles, ornamental railings, metallic picture-frames, curtain-bands, as well as more common articles, afford employment to many thousands of men, women, and boys. The buckle trade, formerly so large, has entirely disappeared, and metal buttons are produced in but small quantities. The glass trade, including stained glass for windows, is very successfully prosecuted, and in the vicinity of the town is the gigantic establishment of Messrs. Chance, who supplied the whole of the material required for the glazing of the Crystal Palace for the exhibition of 1851.

A writer (Leland) in the time of Henry VIII, speaking of Birmingham, says, (*ipsissima verba et litera* :)

The beauty of Birmingham, a good market towne in the extreame parts of Warwickshire, is one street going up alonge almost from the left ripe of the brooke, [the Rea,] up a meane hill by the length of a quarter of a mile. I saw but one paroch church in the towne. There be many smithes in the towne that use to make knives and all manner of cutting tooles, and many lorimers (saddlers) that make bittes, and a great many naylor; so that a great part of the towne is maintained by smithes, whoe have their iron and sea-cole out of Staffordshire.

Camden, who wrote half a century later, describes it as "swarming with inhabitants and echoing with the noise of anvils."

Electro-plating, which has sprung up entirely within a recent period, is now carried on to an almost incredible extent. The manufactory of Messrs. Elkington, elsewhere mentioned, is the parent establishment in the town. Jewelry, in the fabrication of which female labor largely enters, is made in great quantities. The *papier-maché* trade is extensive. Such articles as sofas, tables, and other kinds of furniture, in addition to the smaller kinds, such as desks, work-boxes, and inkstands, are manufactured and ornamented with figures, flowers, and landscapes, and inlaid with pearl. Fire-arms in great numbers are made in Birmingham. The gun trade, first stimulated by government patronage in the time of William III, retains its early reputation. The factory of the Birmingham Small-Arms Company is largely employed in executing orders from foreign governments. A proof-house, where all gun-barrels manufactured are required to be proved, was established by an act of Parliament in 1813. Metal-rolling, wire-drawing, and pin-making are extensively carried on, while Birmingham stands unrivaled in the manufacture of steel pens.

Mr. Consul Gould furnishes the following interesting information in regard to this important industry :

Steel pens are now made at fourteen factories in Birmingham, and the aggregate production is 15,000,000 per week. There are not less than 2,500 persons employed in the manufacture, producing an aggregate of 750,000,000 annually.

Joseph Gillott, the famous steel-pen maker, died in this town January 6, 1872, at the age of seventy-one. Probably no name has been more widely known for the last forty years than that of this man. Every school-boy in the Old and New World has become familiar with the articles which bear his name. At the time of his death it is estimated that his establishment was producing 150,000,000 pens annually, averaging a ton per day. If we estimate one-half this number as the average for the last thirty years, it will give the enormous aggregate of 2,250,000,000 pens sent out by one man.

It has been denied that he was the first to produce the steel pen, which was originally in the round or barrel form, the two edges of the strips of steel being brought together and forming the slit. These were produced by hand, but Mr. Gillot conceived the idea of manufacturing them by machinery, and his establishment has long been one of the attractive places for persons visiting Birmingham.

Joseph Gillott began life poor, his calling being that of a grinder of cutlery at Sheffield. He came to Birmingham about fifty years ago and followed the business of steel-toy maker for some time, and about thirty-five years since began to make the steel pens which have caused his name to be so well known to the world. These pens

at first were clumsy and stiff and poorly adapted for writing purposes. One of his first devices to remedy the stiffness was the small slit on each side of the point. With the use of dies came the various forms which have since been furnished. The first pens sold for fifty and seventy-five cents each, and for a long time the value was twenty-five cents. The price has gradually decreased, till at the present time they are sold as low as one cent per dozen.

Josiah Mason, also a manufacturer of steel pens, is still living at a greater age than that of Mr. Gillott, and his history is quite similar to that of his compeer, he having started from the most humble circumstances, though he is now regarded as the richest man in this wealthy town. Having no children of his own, he has devoted the whole of his immense wealth for the benefit of the children of the poor. His magnificent orphanage, costing a half million of dollars, is one of the ornaments of our suburbs, and a whole square has been purchased by him in the heart of the city, where elegant and costly buildings are to be erected for a college for poor young men. His immense pen establishment is to be left in the hands of trustees, who are to devote the proceeds to the support of his beloved schools. Mr. Mason's name has not become so intimately associated with steel pens as that of Mr. Gillott, from the fact that he has chiefly manufactured for other parties, whose names have appeared upon the products. \* \* \* Each establishment manufactures three hundred and fifty tons annually. The celebrated Perry, of London, has had his stamp upon Mr. Mason's pens from the first, and they have been justly esteemed as equal to any in the market.

### EXPORTS FROM BIRMINGHAM TO THE UNITED STATES.

*Comparative statement of exports from the consular district of Birmingham to the United States for the respective years ending September 30, 1873 and 1872.*

[The pound sterling computed at \$4.8665.]

Description of goods.	1873.	1872.
Hardware, steel, and iron .....	\$1, 318, 999	\$1, 934, 909
Sheathing-metal .....	83, 305	83, 441
Iron cotton-bale hoops .....	179, 456	111, 363
Anvils and vices .....	94, 800	83, 441
Tin-plates .....	119, 194	104, 768
Chains, hoes, and scythes .....	439, 745	416, 456
Saddlery and skins .....	148, 666	181, 954
Guns and implements .....	659, 850	675, 449
Needles and buttons .....	450, 835	451, 821
Watches and materials .....	30, 833	42, 924
Chemicals .....	147, 101	133, 638
Cotton and silk goods .....	61, 566	167, 779
Beet materials .....	61, 378	68, 434
Glass, sheet and ware .....	283, 182	273, 109
Pens and tips .....	99, 448	85, 359
Jewelry and fancy-goods .....	344, 117	484, 560
Optical .....	30, 604	37, 146
Chandeliers .....	38, 152	30, 564
Nickel and cobalt .....	4, 036	22, 236
Jet, real and imitation .....	93, 380	16, 443
China ware and Porian .....	122, 092	78, 303
Miscellaneous .....	19, 694	.....
<b>Total for Birmingham .....</b>	<b>4, 716, 765</b>	<b>5, 400, 942</b>
Leicester agency .....	900, 132	821, 011
Kidderminster agency .....	696, 679	947, 902
Wolverhampton agency .....	519, 453	669, 958
Redditch agency .....	630, 384	673, 710
<b>Total from Birmingham and districts .....</b>	<b>7, 463, 413</b>	<b>8, 531, 923</b>

### WAGES IN BIRMINGHAM.

On previous pages, in the classification by industries, the wages paid in Birmingham are given. The rates in some branches of manufacture were personally obtained from the proprietors of the shops, factories, and works indicated, and verified by conversations with the more intelligent workmen.

*Engineering-works.*—Mr. May, of May & Fountain, engineers, took particular pains to afford full information in regard to the wages paid in iron-founding and machine shops, as they are designated in the United States. Fitters, turners, smiths, &c., best men, earn 36s. per week, a very few as high as 40s.; ordinary machinists, 28s.; inferior machinists, 24s. to 26s. Those receiving but 24s. have not served a regular apprenticeship. Average of the whole shop, about 30s.; laborers, somewhat skilled, 18s. to 24s.; laborers, unskilled, 15s. to 18s. This firm does not employ society men. In shops employing society men only, the average rate is about 32s., some of the best earning as much as 40s. Young men, not so well skilled, earn 25s. per week.

A "society man," a molder of considerable intelligence, working in another establishment, gave the following as the wages in shops employing society men: Molders, 34s. per week of 54 hours, a few obtain but 32s.; fitters, 30s. to 32s. A few superior men get more. Average of all except molders, 30s.; laborers assisting in putting up machinery, 20s.

*Harness-factory.*—Messrs. Ashford & Winder furnished the following information in regard to the earnings of their work-people: Ordinary workmen earn from 24s. to 26s. per week; best workmen earn from 28s. to 30s. per week; girls, 8s. Men on saddles, piecework, after paying women to help, earn about 40s. Carriers, on piecework, earn from 50s. to 60s. These last save nothing, however, some being out of money before the week is over, owing to intemperance. The sewing is chiefly done by hand. They have one sewing-machine and are about to order another. They prefer those of Boston make.

In houses of working-people, girls were seen sewing traces, and at other harness work. A harness-maker, working in another shop, stated that he earns at piecework 26s. Men working by the week average not over 24s., or at most 25s. They find it difficult to support their families on such wages. Many leave off working at trades and become porters, because they can thus earn more money.

*Silver-plated ware.*—Messrs. Elkington & Co.'s manufactory of silver-plated ware is celebrated throughout the kingdom for the excellence of the workmanship and for the artistic taste displayed in the great variety of articles produced. The manager gave the earnings of the employes as follows: About 500 hands are employed, who work fifty hours net per week, mostly on piecework. Chasers earn from 40s. to 45s.; other workmen, from 35s. to 40s.; inferior, as low as 26s.; average of the whole, about 35s.

*Gillott's Steel-Pen Works.*—The employes are nearly all girls, who earn about 10s. per week.

*Thimble-factories.*—Small girls chiefly employed, who earn from 4s. 6d. to 5s. per week.

*Other factories.*—The average weekly wages of girls at other factory-labor is about 8s., some receiving as high as 10s.

*Birmingham Small-Arms Company's Works.*—These works are at Small-heath, some four miles from the city. About 1,000 men are usually employed, but when the visit of the author was made only 500 were at work, on a large order for the Russian government. Most of the men work under contractors, who pay from 30s. to 35s. per week for good hands; ordinary and inferior obtain less. Small boys receive 8s. per week; youths, 16s.; laborers, about 16s., but they usually work over-hours, and thus earn 20s.; tool-makers, 36s. to 40s., average about 38s.; grinders, 50s. to 60s., obtaining higher wages in consequence of the dangerous nature of the work.

## WAGES OF LABORERS IN BUILDING TRADES.

Mr. George E. Jeffery, secretary of the Birmingham Master-Builders' Association, in a letter to one of the newspapers of that city, dated March 10, 1874, gives the following statement of the rates of wages paid to laborers in Birmingham for the preceding nine years :

For several years before 1864, and to May of that year, the rate of wages paid was 17s. per week of sixty hours.

In May, 1864, 18s. was paid per week of sixty hours.

In June, 1865, payment by the hour was commenced, and the rate per hour was advanced to 4d., the time worked fifty-eight and a half hours, or 19s. 6d. per week.

In May, 1867, time was reduced to fifty-six and a half hours, and wages advanced to 4½d. per hour, or £1 per week.

In May, 1868, the rate of wages paid was 4½d. per hour for fifty-six and a half hours, and this rate of wages and time continued till May, 1872, when, under the arbitration, conducted by Mr. R. Kettle as umpire, wages were advanced to 4½d. per hour, and the time reduced to fifty-four hours, or to £1 1s. 4d. per week, which is the present rate of wages and time.

These figures show an advance of wages per hour in nine years at the rate of 40 per cent., and 5 per cent. more is now offered, making fifty-four hours, at 5d. per hour, or £1 2s. 6d. per week.

It is proper to state in this connection that Mr. Stephens, secretary of the laborers' association, asserted that the rate of wages was then but 16s. per week.

## WOLVERHAMPTON.

Wolverhampton is situated in the great midland coal and iron mining district known as the Black Country, and has manufactories of almost every article produced from iron, steel, and brass. It is a place of considerable antiquity, although little is known of its history until the year 996, when Wulfrune, sister of Ethelred II, endowed a church and college here. The town was then called Hampton, and afterward Wulfrune's Hampton, which has since been corrupted to the present name. Wolverhampton depends mainly upon the manufacture of iron and hardware. The lock-manufacture is one of the oldest in the town, the famous Chubb lock being made here. Tin and japanned ware, hollow ware, gun-locks, safes, cut nails, tools, and implements, are also manufactured; and all these branches together with brass founding give employment to a large number of hands.

The report of the sub-inspector of factories for this district, in 1873, states :

In Wolverhampton and the Black Country, trade has been very good in almost all branches. Many new works have been opened, and old ones have been enlarged. One firm that in 1868 employed 272 hands, now employs 829; and another that at the same date had one factory with 540 hands, 280 of whom were females, has now three factories with 1,143 hands, of whom 504 are females. The tube trade in particular has made great strides within the last few years. The number of such factories has doubled since 1868; and, with one or two exceptions, all the factories then in operation have been enlarged. The demand for labor has consequently increased.

The following notes, in regard to wages in Wolverhampton, are from the author's note-book; those relating to the cost of subsistence and the condition of the working-people will appear in subsequent pages :

*July 10, 1872.*—Went to Wolverhampton, passing a succession of villages in the Black Country, the town of Dudley off to the left—all engaged in coal-mining or in the production of iron. Saw ruins of the old Warwick Castle, which, with the mines, belong to the Earl of Dud-

ley. The Earl works the mines and makes iron. His income is said to have been £600,000 in 1871, and it is estimated that in the current year (1872) it will reach £1,000,000. Visited large iron-works of Thorneycraft & Co., Wolverhampton. They pay the usual rates for puddling. Laborers in yard wheeling iron, &c., receive 16s. per week. Men who assist in rolling large iron get higher rates, some 4s. 6d., and a few 5s. per day. Women wheeling cinders earn 8s. per week. The firm had declined to employ women for such work, but of late, owing to the scarcity and high wages of men, have been obliged to engage them. The work, though very dirty and unsuitable for women, is not hard.

Coal now costs 13s. to 14s. per ton of 22 cwt. The firm owns mines, but can purchase coal which is mined nearer the works at lower rates than they can mine it.

A puddler employed in Jenks & Sons' iron and steel works says that his net earnings are only 30s. per week, viz: 4 tons at 11s.—44s.; less paid for helper, 4 tons at 3s. 6d.—14s.; net 30s. He says that he can lay up little or nothing.

Visited Chubb's lock factory; from 80 to 90 men employed; no machinery used. The locksmiths are highly skilled workmen. Men are engaged on piecework. Average weekly earnings 35s. per week. On consulting the books of the firm it was found that some of the most skilled men received last week 44s. each.

In other shops and factories: In engineering or machinists' shops the average wages is 30s. per week. A tool-maker earns at piecework 50s., pays assistant 7s. on the £1—18s. 9d.; net earnings 31s. 3d.

A hoe-maker who had gone to the United States, where he obtained higher wages, but owing to high prices of subsistence and the heat, had returned, has worked for one firm twenty-four years, and never lost time except from sickness. Receives 30s. and has to work all the time to live and support family of five children, none of them old enough to earn anything.

Girls in various branches receive from 7s. to 11s. per week.

#### SHEFFIELD.

Population in 1871, 239,946.

The enumeration of the various leading articles manufactured in Sheffield would fill many pages, and yet the principal productions can be expressed in two words, steel manufactures. This town was renowned for its knives in the time of Chaucer, and is still the chief seat of the English manufacture of cast, shear, and blister steel of all kinds, steel wire, cutlery and tools of almost every variety, railway and carriage springs and buffers, and many other kinds of steel and iron ware, as well as all classes of silver, silver-plated, electro-plated, German silver, britannia and other white metal goods. Britannia metal and the process of silver-plating were invented here.

The Cutlers' Company, known throughout the kingdom by its anniversary, called the "Cutlers' Feast," had its origin in the sixteenth century in certain trade regulations, wholly opposed to modern ideas, "Agreed upon by the whole fellowship of cutlers." It was incorporated by statute in the reign of James I. The list of trades given in the charter of the company enumerated only "knives, scissors, shears, nickles, and other cutlery."

An examination of the stock of one establishment, such as that of the Messrs. Rogers, would indicate a considerable increase in the variety

as well as the volume of articles manufactured from steel. It would be interesting to trace the progress of the leading industries of Sheffield, and to refer to some historical incidents,\* but time and space forbid.

### EXPORTS TO THE UNITED STATES.

The variety as well as the value of the manufactures of Sheffield, which find a market in the United States, are, to some extent, indicated in the following:

*Statement showing the exports from Sheffield to the United States during the years ending December 31, 1872 and 1873.*

Articles.	1872.	1873.
Steel.....	\$3, 186, 053	\$2, 975, 973
Bessemer-steel rails.....	1, 629, 019	1, 603, 658
Fish-plates.....	12, 519	47, 456
Tires.....	2, 273	1, 593
Axles.....	12, 213	5, 876
Crank-pins.....	2, 915	2, 868
Wheels and axles with Bessemer-steel tires.....	4, 137	.....
Cast-steel tires.....	165, 446	161, 036
Tire-blooms.....	123, 057	122, 565
Springs.....	27, 155	13, 458
Axles.....	54, 971	74, 053
Frog-points, crank-pins, and pinions.....	3, 692	2, 208
Switches, railroad-chairs, &c.....	2, 286	2, 559
Cast-steel bells.....	1, 941	3, 462
Cast-steel rolls.....	335	1, 693
Steel tube.....	.....	3, 438
Gun-castings.....	.....	3, 658
Iron, iron wire, iron fence, rods, &c.....	73, 193	41, 290
Telegraph-wire.....	187	1, 358
Machinery.....	3, 743	4, 827
Hardware.....	2, 502	2, 849
Anvils.....	9, 245	5, 613
Cutlery.....	1, 246, 949	1, 514, 385
Files.....	564, 024	563, 498
Saws.....	24, 024	14, 364
Other tools.....	111, 094	94, 599
Garden tools.....	5, 943	5, 875
Scythes, sickles, and grass-hooks.....	10, 291	10, 003
Sheep-shears.....	26, 126	22, 979
Plated goods.....	4, 876	1, 403
Trays and waiters.....	3, 496	3, 094
Umbrella-ribs.....	19, 524	17, 439
Hackle and gill pins, steel mills, flyers and doctors or calico web.....	6, 172	4, 286
Upholsterers' materials, viz, curled hair, cotton-warp seating, &c.....	56, 118	51, 994
Guns, gun-material, shooting-tackle, &c.....	38, 779	27, 348
Measures, measuring tapes and rules.....	17, 537	15, 997
Optical and mathematical instruments, spectacles, &c.....	7, 529	7, 268
Surgical instruments, bandages, &c.....	8, 403	4, 125
Salted skins.....	256, 685	355, 365
Granite tomb.....	477	.....
Grindstones.....	10, 887	14, 033
Miscellaneous.....	20, 033	19, 570
/ Total.....	7, 902, 440	8, 035, 894

\* The poet Montgomery lived, was imprisoned, and died in Sheffield. The advocate of political as well as personal liberty, of free speech, and of a "free press," he was rewarded by a long imprisonment. The publication office of his paper "The Iris," (now a small provision shop,) his editorial room, his chair and his desk, as well as the house in which the latter years of the good old man were passed, and where, in 1854, he died, were visited with deep interest and veneration.—E. Y.

## RATES OF WAGES IN 1872.

The earnings of workmen in the mechanical trades and in some of the iron and cutlery works of Sheffield, in 1871, are given on previous pages. In addition thereto the following statements are presented :

*Table showing the mean wages of mechanics and other laborers per week, in United States gold.*

Class of labor.	Wages.	Class of labor.	Wages.
<b>Mechanics:</b>		<b>Engineers' tools—Continued.</b>	
Blacksmiths .....	\$6 53	Grinders .....	\$7 62
Carpenters .....	7 26	Fillers .....	6 53
Masons .....	7 74	<b>Sheep-shears:</b>	
Painters .....	6 53	Forgers .....	9 68
Plasterers .....	7 02	Strikers .....	6 78
Shoemakers .....	5 32	Grinders .....	9 80
Boiler-makers .....	6 53	<b>Hammer-makers:</b>	
Wheel and mill wrights .....	7 74	Forgers .....	9 68
Carters .....	5 08	Strikers .....	7 26
Clerks in railway-offices .....	6 05	<b>Razors:</b>	
Slaters, 7d. per hour, 53 hours per week .....	7 26	Forgers .....	7 26
Slaters' assistant, 5d. per hour, 53 hours per week .....	5 32	Grinders .....	9 44
<b>Table-cutlery:</b>		Hafters .....	6 78
Table-blade forgers .....	7 19	Girls, assisting, putting up, &c. ....	1 63
Table-blade grinders .....	6 69	<b>Silver-plated ware:</b>	
Table-blade hafters .....	5 34	Silver-smiths .....	7 87
<b>Table-forks, steel:</b>		Chasers .....	7 87
Forgers .....	6 29	Engravers .....	9 68
Grinders .....	7 87	Burnishers. { Women .....	3 03
Fillers, boys and girls .....	2 05	{ Girls, 12 to 16 years .....	1 82
<b>Pocket-cutlery:</b>		{ Women .....	3 30
Pocket-blade forgers .....	6 69	{ Girls, 12 to 16 years .....	1 82
Grinders .....	7 26	<b>White-metal ware:</b>	
Hafters .....	6 05	Spinners .....	8 83
<b>Saws:</b>		Putting together .....	7 02
Saw-makers .....	7 02	Castors and stampers .....	7 50
Saw-grinders .....	8 47	Buffers { Men .....	6 41
Handlers .....	6 78	{ Women .....	2 90
Rubbers, women .....	2 18	Women-casters .....	2 42
<b>Scissors:</b>		Girls, buffers and cleaners .....	1 45
Forgers .....	6 05	Women in warehouse .....	2 54
Grinders .....	8 83	Burnishers, women .....	2 90
Fillers .....	6 41	<b>Files:</b>	
Putting together .....	6 41	Forgers .....	13 31
Burnishers, women .....	1 94	Strikers .....	9 68
<b>Edge-tools:</b>		Grinders .....	12 71
Forgers .....	10 16	Cutters .....	7 26
Strikers .....	7 74	<b>Steel:</b>	
Hardeners .....	6 78	Melter .....	12 10
Grinders .....	10 29	Puller-out .....	7 02
<b>Engineers' tools:</b>		Cokers .....	4 86
Forgers .....	7 87	Pot-maker .....	9 68
		Converting-furnace men .....	4 88

*Builders' Association wages in November, 1873.*

Carpenters .....	15 cents per hour.
Bricklayers .....	15 cents per hour.
Stone-masons .....	16 cents per hour.
Stone-fixers, (trimmings, &c.) .....	18 cents per hour.
Laborers .....	10 cents per hour.

The following extracts from the author's note-book present some data in regard to wages in Sheffield. Those relating to cost of provisions and rent will be found on subsequent pages.

*July 12, 1872.*—Visited the extensive steel-works of Messrs. Thomas Firth & Sons, and was courteously shown through every part by Mr. Firth, jr., who explained all the processes and afforded information in regard to wages, &c.

Head-roller works by the cwt. and earns from £3 to £4 per week.

At melting, five men employed at a fire; one receives 40s., two 28s. each, and two 19s. each per week. Hammer-men from 30s. to 40s., la-



borers more or less skilled from 19s. to 21s., average, 20s. Small boys from 6s. to 8s., large boys or youths, who assist in rolling, receive up to 15s. and even 16s.

Swedish iron is largely used, especially for tools. For other work and for some of this, there is an admixture of best English iron, selected brands.

*July 13.*—In company with Dr. Webster, United States consul, was shown through the celebrated cutlery works of Messrs. Rogers & Sons. Grinders receive about 60s. per week, but having to find stones and tools, they net about 45s. per week. Owing to precautions taken, this work is not so destructive to health as formerly.

Average earnings of the men engaged in the various kinds of work range from 28s. to 30s., some earn 35s.

In some branches, such as forging pocket-knife blades, two men work together, and at piecework each can earn 7s. 6d. per day, but as the work is hard, they are unable to labor all the week, averaging only four days, and earning but 30s.

In Laycock's hair-cloth factory the girls who weave hair-cloth earn 8s. per week.

Some men who do work for large establishments by contract, pay men from 28s. to 30s. and earn from £5 to £6 per week; but these are really contractors or small manufacturers, and must not be classed with men who work at fixed rates.

Laborers in Sheffield earn from 18s. to 19s.

Carters, drivers of teams carrying steel and hardware to railway-stations, or driving for manufacturers, get from 20s. to 22s.

#### PROSPECTIVE DECLINE IN WAGES.

It has been seen from statements presented on preceding pages that there has been a considerable reduction in wages in the iron and coal-mining industries from the maximum rates of 1872, but a movement has been made looking to a reduction in iron-foundries, engineering-shops, and other branches, or, in other words, an increase in the hours of labor. A return to the old system of ten hours per day is proposed. The following extract from an article in the *London Times* of December 21, 1874, more fully explains the proposed change:

A very important step is being taken by the directors of the Atlas Works, John Brown & Co., one of the largest manufacturing concerns in Sheffield. A few weeks since they discharged a large number of their workmen, and reduced the wages of others by 12½ per cent. They are now about to make a change more important than any yet carried out. A notice has been posted in the works announcing that from the 4th of January the wages of the engine-tenders, the hammer-drivers, and the boiler-firers will be reduced 10 per cent., and those of the laborers in the engineer's, buffer, foundry, and planing departments will be reduced by a similar amount. The time of the laborers in the steel, spring, forge, rail, and tire mills and hammer-shops will be altered to fifty-nine hours instead of fifty-four as at present. The object of the notice clearly is to endeavor to bring about a return to the old system of working ten hours a day. In departments where this cannot be done the wages of the men are to be reduced 10 per cent. Thus, in the engineer's, buffer, foundry, and planing departments the skilled workmen are under the fifty-four-hour system. While this continues it is obviously useless to keep the laborers employed fifty-nine hours, and consequently the wages of the whole of them in these departments are to be reduced 10 per cent., which is considered equivalent to the difference between fifty-four and fifty-nine hours. But in the steel, spring, forge, hammer shops, and mills it is possible to increase the working hours of the laborers to fifty-nine, because the skilled artisans work night and day turns. In all these departments, therefore, so far as the laborers are concerned, the fifty-nine-hours system is to be introduced. The proposed change is one which will strike a severe blow at the nine-hour movement, but in the present condition of trade it is not likely the men will offer any very serious opposition to it. To the introduc-

tion of that movement the directors, John Brown & Co., attribute very much of the present depression in the Bessemer steel, railway, and other heavy departments. It is said that the loss of four working hours per week has resulted in an increase in the cost of productions of fully 10 per cent. This fact, coupled with the keenness of continental competition, makes it almost impossible for Sheffield makers of railway and other heavy-class goods to successfully compete with Belgian houses, for wages in Belgium are not so high as they are in England, and the men work ten hours a day. There is no doubt that the example set by John Brown & Co. will be followed by all the other large works at Sheffield, and that ultimately the skilled workman, the engineers among the number, will be asked to return to the fifty-nine-hour system. An attempt in this direction on a small scale has already been made at two works and with a successful result.

#### NOTTINGHAM.

Population in 1871, 86,621.

The invention of the stocking-frame in the year 1589 gave rise to one of the most interesting chapters in the history of mechanical and manufacturing industry. It was upon this machine that, about a century ago, a coarse imitation of cotton-lace was first produced. The fabric was all woven from one continuous thread. A beautiful adaptation of the machinery enabled a fine silk net (point lace) to be made, employing for many years 1,500 frames in Nottingham and its vicinity. This fabrication has long since died out. Then the machine was so arranged that the material should be used altogether as warp. This very ingenious machine is still usefully and extensively employed. In 1809 a working-frame smith in Nottingham invented and patented the bobbinet-machine. A woman making lace on a pillow may produce three to five meshes or interstices in a minute. The first machine produced 1,000 meshes per minute. A square yard of the produce was sold for \$25. This machine, as originally constructed, though displaying great mechanical skill, was a complicated one. During the time that has since elapsed, incessant and remarkable ingenuity has been shown in simplifying and improving the machine, and plain net, of like quality to that first made, is now sold currently at 12 cents the square yard. A man turns off with ease 40,000 meshes per minute from this "mechanical pillow," as the bobbinet-machine was originally called by its talented inventor. The Jacquard apparatus has been since applied, at great cost, but with perfect success.

#### EXPORTS TO THE UNITED STATES.

The annual exportation of lace, hosiery, and other Nottingham goods are exhibited by the following statement, showing the exports from Nottingham to the United States during the years ending December 31, 1872 and 1873, the value being computed in United States gold:

Goods.	1872.	1873.	Goods.	1872.	1873.
Lace .....	\$3, 027, 885	\$3, 389, 687	Ribbons .....		\$16, 386
Hosiery .....	1, 080, 825	1, 033, 056	Artificial flowers .....	\$1, 369	
Cottons .....	47, 460	60, 205	Straw plait .....	9, 635	796
Linens .....	86, 569	33, 064	Woolen goods .....	2, 329	169
Quilts .....	3, 751	1, 136	Umbrellas .....	2, 505	
White goods .....	306, 935	61, 945	Salted skins .....	301, 977	330, 891
Handkerchiefs .....	21, 703	4, 767	Plaster and cement .....	9, 985	15, 283
Muslins .....	125, 324	42, 154	Earthenware .....	11, 316	3, 426
Elastics .....	66, 376	57, 699	Machinery and iron goods .....	28, 553	20, 135
Velvets .....	68, 577	69, 202	Miscellaneous .....	7, 111	9, 049
Crape .....	555	27, 154			
Silk .....	1, 344	1, 903	Total .....	5, 114, 124	5, 178, 130

Nottingham, although not visited in the order indicated, is noticed in this place, because it lies within the consular district of Sheffield.

The following data from the author's note-book relate only to wages. Information in regard to the rent of rooms, prices of provisions, and condition of the work-people will appear further on.

July 20, 1872.—Visited a number of lace-factories. In that of Mr. Thomas Hill the following wages are paid :

Earnings of men, piecework, average, Mr. Hill states, 28s. or over per week. His son thinks the average nearer 30s., and handed me the weekly pay-roll. The first twelve averaged exactly 30s., but those lower down received less. The average is between 28s. and 29s. Some men receive as high as 40s., while others, such as old men, earn as low as 10s. Those who average 28s. are the first class. The second class earn from 20s. to 22s. There is a wide difference between the efficiency of the first and second classes, owing partly to difference in machinery, the latter using old-fashioned hand-loom, the former the most improved machinery.

The average earnings of the young women is 9s. 6d. per week. A few earn from 11s. to 13s. per week, but they usually overlook a few others.

Small girls—known as “half-timers,” because they are required by act of Parliament to attend school half the time—receive from 2s. 6d. to 3s. per week for such labor as they can perform.

The wages of work-people, with best class of lace-machinery, on lace-curtains, black-silk laces, &c., average from 35s. to 40s. per week of fifty-four hours for men, as given by Messrs. J. S. Wells & Co., lace-curtain manufacturers, and 40s., as stated by Mr. Hill.

In explanation of the high rates, Mr. Hill stated that the work commanded higher prices because it is injurious to the eye-sight, few men over fifty-five, or at furthest sixty, being able to work at it. Women employed in the same branch earn on an average 10s. 6d. per week. Good fitters engaged in these factories earn 40s. per week. Some men on machines making black-silk lace earn from £3 to £4 per week, but this is exceptional. The high wages obtained is explained by the fact that the work consists of some new pattern or style, which is at the moment fashionable and in great demand, but will probably soon go out of fashion and the demand consequently cease. Did not visit the works of Mr. Mundella, M. P., whom I saw in London.

*Hosiery factory of Messrs. A. T. Stewart & Co., of New York.*—The earnings in this factory are indicated by the following extract from a letter from Mr. T. G. Carver, agent in Nottingham, to the firm in Manchester, in reply to an inquiry addressed to him concerning the average earnings of the various hands employed in the factory there. The original was shown, and a copy handed me by Mr. Fox, resident partner at Manchester :

In reply to your question as to the earnings of our various hands for the last three months, I have to report as follows: Rotary half-hose hands, £2 4s. 5d. per week; shirt-body hands, girls mostly, £1 9s. per week; rib-top hands, £2 1s.; average earnings on Paget's patent frames, all girls, 16s. 6d.\*

#### MANCHESTER.

Population in 1871, 383,843; Salford, 124,805—508,648.

This ancient town, the site of a fort built by the Celts, was named Mancenion, or “the place of tents.” It was taken possession of about the year 72 by the Romans, who continued masters of it until their final departure from the island, some three centuries afterward. It fell into the hands of the Pictish invaders and was occupied successively by the Saxons, the Danes, (about 870,) and long afterward by the Norman Conqueror, by whom it was assigned to William of Poicton, who

\* It is not pretended that the above are the regular or usual earnings of operatives in other factories in Nottingham, or elsewhere in England. In reply to my inquiries of Mr. Fox, in Manchester, and of Mr. Stewart, subsequently, in New York, it was stated that the men and women who earn such high wages are most superior in skill and industry.—E. Y.

became the Lord of the Manor. It is not celebrated, however, for its historical associations, but from the fact that it ranks as the first manufacturing town in the empire, while in population it is only surpassed by London and Liverpool.

Manchester has been a place of trade from a very early period. In the reign of Henry VIII a law was enacted to remove the right of sanctuary from Manchester to Chester, on the ground that it caused the resort hither of idle and dissolute persons, to the injury of trade, both in linens and woollens, for which the place was distinguished, and which gave employment to many artificers and poor folks, whose masters, by their strict and true dealing, caused the resort of many strangers from Ireland and elsewhere with linen, yarn, wool, and other necessary wares for the making of cloth to be sold there. The disturbances in France and the Netherlands had tended not a little to the growth of manufactures in the town, by causing the settlement of French and Flemish artisans in Lancashire. Early in the last century, it was mentioned as a remarkable fact that in Manchester and Bolton alone goods to the amount of £600,000 were annually manufactured.

Manchester is the center of a great system of canals, and has railway communication with nearly all parts of England. The name of the town has from a very remote period been connected with industry and trade; but its present great importance is specially due to the magnitude of its cotton manufactures, the greatest in the world. It is mentioned as having maintained a trade with the Greeks of Marseilles. In 1552 an act was passed for the better manufacture of Manchester cottons; and in 1650 its manufactures ranked among the first in extent and importance, and its people were described as "the most industrious in the northern part of the kingdom."

Connected with the cotton manufacture are many important and extensive branches of industry, such as bleaching, printing, and dyeing works, manufactures of the various materials employed in those processes, and particularly the great establishments for the construction of steam-engines and machinery. Among these the Atlas Works and those of Sir Joseph Whitworth are the most prominent, while the extensive works in Oldham and Manchester for the production of cotton-machinery are well known in other countries. It is also the chief market in the world for the production of cotton yarn or thread, the supply of which passes through the hands of numerous resident foreign merchants, who export it to their respective countries, giving to Manchester in this respect a character quite unique among inland cities. The manufacture of silk and silk goods and of mixed cotton and silk fabrics is also largely carried on.

As Manchester is the seat of the cotton-trade of Great Britain, it may not be inappropriate to present here some data in regard to the extent of that vast industry:

In 1871 there were in Great Britain 2,484 mills for its manufacture, 38,218,758 spinning-spindles, including 3,523,573 doubling-spindles, 440,676 power-looms, employing in all 449,087 persons. The cost of the buildings and machinery about the trade is said to have amounted to £57,000,000, (\$277,390,500,) with a floating capital of £30,000,000, (\$145,995,000;) and there were 4,500,000 persons, in all its branches, dependent upon its prosperity for their livelihood. The total quantity of yarn exported in 1872 was 211,900,000 pounds weight, of the value of \$81,270,550; and the total quantity of calicos, cambrics, fustians, &c., was 3,535,100,000 yards, worth \$286,636,850. Besides these there were \$21,899,250 worth of lace and small wares, raising the local value to \$389,806,650. Such is the perfection, too, to which cotton-spinning

is carried, that on a self-acting mule a single thread has been produced measuring upward of one thousand miles in length and only weighing one pound.

To illustrate the great decline in the prices of cotton goods, owing to the introduction of improved machinery and the reduced price of raw material, the fact may be stated that a kind of calico which sold toward the close of the last century at 6s. a yard can be produced now at 6d. The average price per yard of goods exported in 1815 was 34½ cents; in 1825, 20½ cents; in 1835, 13 cents; in 1845, 6¼ cents; in 1859, 6½ cents; and in 1871, 6½ cents. The average price of yarn exported, per pound, in 1815 was 3s. 7½d. In 1871 it was 13½d.

In this connection it may be interesting to present a statement of the number of spindles and amount of cotton yarn produced in Great Britain as compared with other cotton-consuming countries at the close of the year 1873.

*Table showing the number of spindles and cotton consumed per spindle in the under-mentioned countries, with the pounds of cotton consumed per spindle and the total annual consumption, supposing the mills to be running full time.*

Countries.	Number of spindles.	Pounds per spindle.	Pounds spun annually.
Great Britain, (1871).....	34,695,185	32	1,223,000,000
United States, (1874).....	9,415,383	57	538,022,000
France.....	5,300,000	38	197,600,000
Zollverein.....	3,000,000	47	141,000,000
Russia.....	2,000,000	60	120,000,000
Austria.....	1,900,000	47	89,300,000
Spain.....	1,400,000	48	67,200,000
Alsace and Lorraine.....	1,700,000	38	64,600,000
Switzerland.....	2,000,000	25	50,000,000
Belgium.....	600,000	43	24,400,000
Italy.....	500,000	48	24,000,000
Sweden and Norway.....	300,000	60	18,000,000
Holland.....	230,000	43	9,890,000

\*Furnished by B. F. Nourse, esq., of Boston.

#### WAGES IN COTTON-MILLS.

The reduction in the hours of labor and the increase of wages in cotton-mills are shown in the following table:

*Statement showing the average weekly earnings of operatives in cotton-mills during the years 1839, 1849, 1859, and 1873.*

Occupation.	Sex.	Week of 69 hours.		Week of 60 hours.	
		1839.	1849.	1859.	1873.
Steam-engine tenders.....		\$5 76	\$6 72	\$7 20	\$7 68
Warehousemen.....		4 32	4 80	5 28	6 24
Carding:					
Stretchers.....	Women and girls.....	1 68	1 80	1 92	2 28
Strippers.....	Young men.....	2 64	2 88	3 36	4 56
Overlookers.....		6 00	6 72	6 72	7 68
Spinning:					
Winders on self-acting mules.....		3 84	4 32	4 80	6 00
Piecers.....	Women and young men.	1 04	2 16	2 40	3 24
Overlookers.....		4 80	5 28	6 24	7 20
Reeling:					
Throttle-rollers.....	Women.....	2 16	2 28	2 28	3 00
Warpers.....		5 28	5 28	5 52	6 24
Sizers.....		5 52	5 52	6 00	7 20
Doubling:					
Doublers.....	Women.....	1 68	1 80	2 16	3 00
Overlookers.....		5 76	6 00	6 72	7 68

Other branches show the same ratio of advances:

The following statement was furnished by the proprietors of the cotton-mills of Messrs. Shaw, Jardine & Co., of Manchester, England, operating 250,000 spindles, and producing yarns from No. 60 to 220, sewing-cottons, lace-yarn, crape-yarn, and two-fold warp-yarns:

*Average wages (per week of 59 hours) of persons employed in 1872.*

Occupation.	Wages.	Occupation.	Wages.
Carding:		Spinning—Continued.	
Overseer.....	\$10 89	Mule-spinners.....	\$13 31 to \$15 73
Second hand.....	7 26	Mule-backside piecers.....	2 43 to 3 87
Drawing-frame tenders.....	2 66	Repair-shop, engine-room, &c.:—	
Speeder-tenders.....	3 14	Foreman or overseer.....	14 52
Grinders.....	5 32	Wood and iron workers.....	7 74
Strippers.....	5 32	Engineer.....	9 68
Spinning:		Laborers.....	5 32
Overseer.....	14 52		

*Wages per week (59 hours) in cotton-mills in July, 1872.*

Occupation.	Sex.	Wages.	Remarks.
Spinners... { Fine .....	Men .....	\$9 60	Very few in Manchester; nearly all self-acting.
Coarse .....	do .....	8 16	
Cyphers.....	do .....	3 60	A cypher is a kind of piecer, &c., on a hand-mule machine; he helps the spinner.
Piecers, on self-actors.....	do .....	3 60	In a fine mill.
do .....	Women.....	2 40	
do .....	Boys.....	2 28	
do .....	Girls.....	2 16	
do .....	Boys.....	2 64	
do .....	Girls.....	2 40	
Overlooker.....	Man.....	8 40	
do .....	Boys.....	1 80	
do .....	Girls.....	1 44	
Scavengers.....	Boys.....	1 12	
do .....	Girls.....	96	
do .....	Boys under 13 yrs.....	60	
do .....	Girls under 13 yrs.....	60	
Weaving:			
Weavers.....	Men .....	4 80	Minds two sail-cloth looms or four calico-loom.
do .....	Women.....	4 08	Minds three calico-loom.
Winders.....	do .....	3 24	Taking all sorts together.
Rulers.....	do .....	3 12	
Minders.....	Men .....	8 64	
do .....	do .....	6 72	
do .....	Women.....	3 00	
Doablers.....	do .....	2 88	

*Average weekly wages (54 hours per week) in engineering-works, in July, 1872.*

Trade.	Wages.	Remarks.
Boiler-makers.....	\$9 90	OVERTIME.—For the first four hours past the usual time each hour worked counts as 1½ hours, and for each succeeding hour it is reckoned as 1¼ hours. No bonus or overtime is allowed, unless the full week of 54 hours is worked. This note applies to all the trades mentioned on this list.
Riveters.....	8 23	
Molders.....	8 23	
Pattern-makers.....	8 23	
Fitters.....	7 02	
Turners.....	7 02	
Machine-men—minders of slotting, drilling, and planing machines.....	5 32	
Blacksmiths.....	7 02	
Strikers.....	4 84	
Laborers.....	4 36	
		NOTE.—The rates of wages given in this table are those paid by one of the largest engineering firms in Manchester. At present, in consequence of the special activity in this branch of business, the wages paid are higher than the trades-union rates.

*Weekly wages (54½ hours per week) in building-trades in July, 1872.*

Trade.	Wages.	Remarks.
Plasterers .....	\$7 98	The plasterers are threatening to strike for fewer hours. Painters are paid by the hour, and in some small shops work 59½ hours per week.
Painters .....	14*	
Plumbers .....	7 98	Bricklayers, bricklayers' laborers, masons, plasterers, and slaters work only from light to dark from the latter end of October to the beginning of March, and, except in the case of masons, receive 12 cents a day less.
Carpenters and joiners .....	7 98	
Bricklayers .....	8 71	
Bricklayers' laborers .....	5 56	
Masons .....	5 81	
Slaters .....	7 98	
	7 96	

\* Per hour.

*Weekly wages in miscellaneous trades.*

Trade.	Wages.	Hours per week.	Trade.	Wages.	Hours per week.
Engine-drivers, &c.:			Binding:		
Drivers .....	\$8 47 to \$10 20	60	Folders and stitchers .....	\$3 39	55
Stokers .....	5 08 to 6 78	60	Binders .....	7 02	55
Cleaners .....	1 45 to 3 67	54	Finishers .....	8 71	55
Printing:			Baking:		
Compositors .....	7 98	55	Foreman .....	7 02	60
Compositors on newspapers .....	8 23	53	Second hand .....	6 78	60
Machine-men .....	7 98	55	Third hand .....	5 81	60
Machine-men on newspapers .....	8 23	53			

The foregoing tables furnish accurate data in regard to the rates of wages paid in various shops and factories in Manchester and vicinity in 1872. The investigations of the author made in this seat of the cotton industry related chiefly to the condition of the work-people, their habits, mode of life, and condition of their homes, and also to the cost of subsistence, the success of the co-operative stores, and their influence upon the members.

The wages paid in several well-known establishments were as follows:

In the works of Sir Joseph Whitworth & Co., where heavy and light machinery and machine-tools and steel-guns are made, the weekly wages of ordinary workmen range from 30s. to 32s., probably averaging, as in other manufacturing towns, 30s. Some of greater skill obtain higher rates, while inferior workmen receive less. Laborers in the works receive from 18s. to 20s.

Sir Joseph Whitworth is favorably known to American engineers, and his report in regard to various industrial establishments of the United States was a fair exhibit of such as he visited. An account of the aid which he offers to young men who have an inclination toward mechanical pursuits will appear on a subsequent page.

The works of Messrs. W. Higgins & Sons, manufacturers of cotton machinery, though not so large as that of Mr. Platt, at Oldham, is well known in the United States.\* About 800 hands are employed.

\* In this and other machine-shops, and in engineering works in various parts of Europe, one who, though an inexperienced, has visited such first-class works as those of Sellers & Co. and others in Philadelphia, of Corlies in Providence, and, indeed, in all our chief cities, especially the locomotive-engine works in Philadelphia, Paterson, Taunton, &c., is struck by the inferiority of the tools and machinery as compared with those of the United States, which are of the best class. There are exceptions, such as the Atlas Works, in Manchester. In iron-ship yards, however, such as that of Messrs. J. Elder & Co., and others, on the Clyde, the Tyne, the Mersey, and the Thames, although all are not of equal excellence, yet the larger number are thoroughly equipped with the best and most improved tools and machines.

Machinists earn about 30s. on an average; boys from 6s. 8s.; laborers, 18s. Some men work by the piece, and earn more than 30s. They can earn 40s. per week if they work full time, which many here, as elsewhere, do not. "Blue Mondays," though less known than in some other industries and in other towns, are not unknown here.

Mr. Dodge, formerly of Cohoes, N. Y., who now makes files near Manchester, gives the following as the average rates of wages in machine-shops:

Turners and fitters, from 30s. to 32s.; planers, from 28s. to 30s.; shapers, also drillers, or those running drilling-machines, from 26s. to 28s.; laborers, from 16s. to 20s. Indeed, in machine-shops throughout the manufacturing towns of England, the average rate of wages for skilled hands is 30s., and of laborers 18s. per week.

Rochdale is another of the cotton-manufacturing towns in Lancashire, and the wages of operatives in cotton-mills and in machine-shops are substantially the same as in Manchester. The earnings of young women were stated to be 12s. per week, while some of greater experience and skill receive from 13s. to 14s. Half-timers, whose weekly wages were only 2s. 6d., now receive 4s. 6d., and some as high as 5s.; turners in machine-shops 28s., and some higher.

#### SEAT OF WOOLEN MANUFACTURES.

As Lancashire is the chief seat of the cotton industry, so almost the whole of the woolen trade is confined to the West Riding of Yorkshire. Leeds is the principal center and emporium of the woolen manufacture, and on its semi-weekly market-days its celebrated Cloth Hall\* is crowded with manufacturers and merchants, where the various kinds of woolen cloths, long celebrated for their excellence, change hands.

Huddersfield is also largely engaged in manufacturing trouserings, waistcoatings, and fancy goods; while Dewsbury, Heckmondwicke, and the surrounding neighborhood make great quantities of carpets, blankets, and coarse cloths. Even more important is the worsted manufacture, which, like that of woolen, has its chief seat in the West Riding, viz, at Bradford. The neighboring towns of Halifax, Keighley, Bingley, Otley, and the surrounding villages are also engaged in it as their staple business.

The number of hands employed in these textile industries in 1871 was as follows: Woolen cloth, 71,683 males, 56,781 females—total, 128,464; worsted manufactures, 34,053 males, 60,713 females—total, 94,766.

#### LEEDS.

Population in 1871, 259,212.

Its site was probably at one time a Roman station. It was subsequently occupied by the Northmen, and in succession by the Saxons and Normans. The name Loidis (Leeds) is Saxon. As a manufacturing town it dates back only to the sixteenth century. There are many handsome public buildings, an excellent library, founded by Dr. Priestly in 1768, and library and museum of the Literary and Philosophical Society, and a Mechanics' Institute, with 2,000 members and 8,000 volumes.

\* Among the rules which govern the trade are the following: 37 inches are allowed to the yard; and, in addition, about one-half yard in pieces under 40 yards, and a yard to pieces over 40 yards in length. Sales are made at three months, and 4d. in the pound deducted for cash payments.



The flax manufacture consumes annually 12,000 tons of flax. Dyeing, coal-mining, iron and machine making, the manufacture of paper, tobacco, pottery, oil and chemicals, form also important branches of industry.

Nearly one-fourth of the whole population, half of whom are females, are employed in the various manufactories. No other town in England is so admirably situated for trade, being placed in the heart of the inland navigation of the country. It is also the center of a net-work of railroads converging to it from all parts of the country, and placing it in connection with every important town of the kingdom.

#### WAGES IN WOOLEN-MILLS.

The following statement showing the rates of wages paid the employés in the Saint Helen's Mills, Leeds, was furnished by the proprietors, Messrs. John Wilkinson, Son & Co., October 9, 1872 :

[Hands employed, 443 ; hours of labor per week, 56½.]

Occupation.	Men.	Women.	Boys.
Block-cutters.....	\$5 72 per week.		
Color-mixers.....	3 96 per week.		
Fullers.....	5 64 per week.		
Wiley-men.....	4 44 per week.		
Weavers, tapestry.....	3 76 per yard.	\$3 28 per yard.	
Washers.....	3 28 per week.		
Overlookers.....	3 52 per week and upward.		
Hardener-machine-men.....	4 68 per week.		
Firemen.....	5 76 per week.		
Card-fillers.....		2 64 per week.	
Sewers.....		2 04 per week.	
Spinners.....		1 44 to \$2 16 per week.	
Tentering-machines.....			\$2 28 to \$2 64 per week.
Perpetual cutting-machines.....			1 50 to \$2 04 per week.

#### WOOLEN MANUFACTURERS.

Occupation.	Per week.	Occupation.	Per week.
Overlookers.....	\$12 10	Weavers.....	\$3 63
Spinners.....	7 74	Buriers.....	2 66
Turners.....	7 74	Cloth-millers.....	2 28
Woodlars.....	5 80	Engine-men.....	2 47
Fillers.....	2 90	Warp-dressers.....	2 28

Statement showing the prices paid for labor in the various trades in the Leeds consular district, September, 1872.

(Hours of labor per week, 54.)

Trades.	Per week.	Trades.	Per week.
<b>CLOTH-DYERS.</b>		<b>FINE-LEATHER FINISHERS—Continued.</b>	
Rine-dyers .....	\$5 08	Kid-calf grounders .....	\$10 16
Black-dyers .....	4 84	Shavers .....	9 88
		Finishers .....	7 40
<b>CLOTH-FINISHERS.</b>		<b>LINEN THREAD.</b>	
Giggers .....	7 26	Skilled men, mechanics, joiners, &c. ....	\$5 80 to 6 78
Giggers, boys .....	2 90	Overlookers .....	5 08 to 6 05
Hand-raisers .....	7 02	Head overlookers .....	Up to 9 68
Overlookers .....	12 10	Laborers, (unskilled) .....	3 87 to 4 36
Cutters .....	7 02	Women, and girls over 15 years of age ..	1 41 to 2 54
Cutters, boys .....	1 57	Half-timers, under 13 years, (for a	
Steamers .....	8 47	week of 29 hours) .....	48
Boilers .....	7 26	Reelers and winders, (paid by piece) ..	1 69 to 2 90
Tenterers .....	(*)	Weavers, (paid by piece) .....	2 18 to 3 63
Pressers .....	(*)		
Drawers .....	(†)	<b>MACHINERY.</b>	
Numberers .....	2 90	Boys, (according to age) .....	1 21 to 2 90
Handle-setters .....	(†)	Laborers .....	4 36
Engine-men .....	8 47	Strikers .....	4 60
Barriers .....	1 94	Smiths .....	6 53 to 6 77
		Planers .....	5 56
<b>TANNERS AND CURRIERS.</b>		Turners and fitters, (ordinary me-	
Skilled tanners .....	7 26	chanics) .....	6 53 to 6 77
Unskilled .....	\$7 02 to 6 77	Best mechanics .....	9 68
Skilled curriers .....	7 26 to 8 95	Foremen .....	12 10
Unskilled assistants .....	4 36 to 7 26	Model-makers, (joiners) .....	7 02
Laborers for both trades .....	4 36 to 5 32		
<b>FINE-LEATHER FINISHERS.</b>		<b>BOOTS AND SHOES.</b>	
Pollmongers .....	5 94	Cutters .....	4 36 to 6 05
Fleathers .....	8 32	Fitters .....	4 36 to 6 05
Purers .....	8 78	Machinists .....	1 94 to 2 90
Chamois grounders .....	8 76	Overlookers .....	7 26 to 9 68

\*8d. per end up to 40 yards.

†7d. per end up to 40 yards.

‡1d. per rod.

**March's machine works**—(manufacturers of flax-machinery.)—Mr. George March, jr., stated that wages had advanced about 16 per cent. The rates now paid for fifty-four hours' work are as follows: molders, 34s.; riveters, turners, best men, 34s.; machinists, ordinary to good, 30s. to 32s.; machinists, inferior, 26s. to 28s.; laborers in works, 18s. to 20s., formerly 16s. to 18s.

**Woolen Factories.**—Yewdell & Sons make woollens of a common quality. They state that weavers, experienced women, earn at piecework 18s. per week, some few as high as 20s. Men earn more.

Younger girls work by the day and earn 9s. to 10s. per week, as doffers, &c. Small girls, half-timers, from 3s. 6d. to 4s. 6d.

**Planing mills.**—Men working in yard, loading flooring and other finished lumber, driving team, &c., 19s. to 22s.

#### BOOT AND SHOE TRADE.

At a conference of the Leeds boot and shoe manufacturers and their workmen, held April 26, 1872, the following rates of wages were agreed upon, the scale of prices to be clear of all rivets, sprigs, &c.:

*Wages in the boot and shoe trade at Leeds.*

Class of work.	Per dozen.		
	Rivet- ing.	Finish- ing.	Paired.
<b>MEN'S LIGHT WORK.</b>			
Best kid, calf, and seal levant.....	\$3 18	\$2 66	\$2 18
Kip and gnuis levant.....	1 94	2 42	1 94
Split or fleashers.....	1 89	2 30	1 89
Common lace-kip, brown bottom.....	1 89	1 94	1 46
Common lace-flesh boot, plain brown bottom.....	1 70	1 89	1 33
Men's shooting-boots, wide welt.....	3 16	3 87	3 39
Cricketer boots and shoes.....	3 28	3 40	2 90
Twos to fives:			
Best kid, calf, and seal levant.....	1 58	1 82	1 46
Kip, split, gnuis, and grained levant.....	1 46	1 70	1 33
Common lace kip and flesh boot, plain brown bottom.....	1 33	1 46	1 21
Elevens to ones:			
Best kid, calf, and seal levant.....	1 46	1 58	1 33
Kip, split, gnuis, and grained levant.....	1 33	1 46	1 21
Common lace kip and flesh boot, plain brown bottom.....	1 21	1 21	96
Sevens to tens:			
Best kid, calf, and seal levant.....	1 08	1 33	1 14
Kip, split, gnuis, and grained levant.....	96	1 21	1 02
Common lace kip and flesh boot, plain brown bottom.....	84	96	78
<b>MEN'S STRONG WORK.</b>			
Stubbed heels and mock clinkers.....	3 06	1 70	1 21
Forge-boots.....	2 66	1 70	1 21
Sparables and hobs.....	2 42	1 70	1 21
Twos to fives, sparables and hobs.....	1 89	1 33	1 06
Elevens to ones, sparables and hobs.....	1 58	1 08	84
Sevens to tens, sparables and hobs.....	1 21	84	66
<b>EXTRAS ON MEN'S WORK.</b>			
Patents.....	24	24	.....
Fiddle-waist.....	.....	24	.....
Machine-sewn.....	24	24	.....
Bevel edge.....	.....	24	.....
Red welt.....	.....	12	.....
Best inside-bevel clump.....	24	96	.....
Best outside-bevel clump.....	72	96	.....
Seconds and thirds inside-bevel clump.....	24	72	.....
Seconds and thirds outside-bevel clump.....	72	72	.....
Firsta, seconds, and thirds square clump. (All clumps to be jumped in the waist)	24	24	.....
One row of rivets or sprigs extra*.....	24	12	.....
Screwed toe and joint in clumps.....	48	24	.....
Three rows of rivets or sprigs in middle.....	12	.....	.....
Common laced kip and flesh boot, black waist.....	.....	12	.....
Nailed boot, with black waist.....	.....	24	.....
Wellingtons.....	24	24	.....
Twos to fives:			
Patents.....	12	12	.....
Machine-sewn.....	18	18	.....
Fiddle-waist.....	.....	12	.....
Bevel edge.....	.....	18	.....
Red welt.....	.....	12	.....
Best and common inside-bevel clump.....	24	48	.....
Outside-bevel clumps.....	48	48	.....
Firsta, seconds and thirds square clumps.....	12	12	.....
Screwed toe and joint in clumps.....	36	18	.....
One row of rivets or sprigs extra*.....	12	6	.....
Three rows of rivets or sprigs in middle.....	12	.....	.....
Common lace kip and flesh boot, with black waist.....	.....	12	.....
Nailed boot, with black waist.....	.....	12	.....
Elevens to ones and sevens to tens:			
Patent.....	6	6	.....
Fiddle-waist.....	.....	12	.....
Machine-sewn.....	12	12	.....
Best and common bevel clumps.....	12	36	.....
One row of rivets or sprigs extra*.....	12	6	.....
Three rows of rivets or sprigs in middle.....	6	6	.....
Common lace kip and flesh boot, with black waist.....	.....	6	.....
Nailed boot, with black waist.....	.....	6	.....
<b>MEN'S SLIPPER WORK.</b>			
Common pumps, white bottoms.....	84	96	.....
Common pumps, brown bottoms.....	84	84	.....
Boys' twos to fives common pumps, white bottoms.....	72	84	.....
Boys' twos to fives common pumps, brown bottoms.....	72	72	.....

\* No extra for finishing one extra row on common brown bottoms.

*Wages in the boot and shoe trade at Leeds—Continued.*

Class of work.	Per dozen.		
	Rivet- ing.	Finish- ing.	Paired.
<b>WOMEN'S WORK.</b>			
1. Best kid and seal levant, either plain, fancy, blocked, turned in or not.....	\$1 27	\$1 45	\$1 21
2. Kid and gnuß levant, either plain or blocks, not turned in.....	1 15	1 33	1 09
3. Kid, sand-boots, and block-grained.....	96	1 21	98
4. Calf and grained bals.....	96	1 09	84
5. Calf, iron rivets or sprigs.....	84	1 09	84
6. Common calf or sheep, iron rivets or sprigs, flat heels, (not higher than $\frac{1}{2}$ inch)	84	96	72
<b>Elevens to ones:</b>			
1. Best kid and seal levant, either plain, fancy, blocked, turned in or not.....	84	1 09	90
2. Kid, gnuß, levant, sand-boots, and calf.....	72	96	78
3. Common calf and sheep, flat heels, iron rivets and sprigs.....	66	84	66
<b>Sevens to tens:</b>			
1. Best kid and seal levant, either plain, fancy, blocked, turned in or not.....	72	96	78
2. Kid, gnuß, levant, sand-boots, and calf.....	66	84	66
3. Common calf and sheep, flat heels, iron rivets and sprigs.....	60	72	54
<b>Fours to sixes:</b>			
1. Best kid and levant.....	60	72	60
2. Calf and common.....	54	66	54
<b>EXTRAS ON WOMEN'S WORK.</b>			
Firsts, seconds, and thirds outside-bevel clump.....	48	72	.....
Firsts, seconds, and thirds inside-bevel clump.....	24	72	.....
Firsts, seconds, and thirds square clump.....	24	24	.....
Firsts and seconds machine-sewn.....	24	24	.....
Thirds machine-sewn.....	12	12	.....
Württemberg heel.....	48	48	.....
Fiddle-waist.....	.....	24	.....
Channels.....	.....	12	.....
White foreparts.....	.....	12	.....
Black waist and brown foreparts.....	.....	12	.....
Brown waist and black foreparts.....	.....	12	.....
All patent.....	12	12	.....
One row of rivets or sprigs extra*.....	24	12	.....
One row of sprigs or rivets round forepart and three in middle.....	36	12	.....
Women's high-legged boots, 7 inches.....	24	24	.....
<b>Elevens to ones and sevens to tens:</b>			
Machine-sewn, elevens to ones.....	12	12	.....
Machine-sewn, sevens to tens.....	6	6	.....
Fiddle-waist.....	.....	12	.....
White foreparts.....	.....	12	.....
Black waist and brown forepart.....	.....	6	.....
Brown waist and black forepart.....	.....	6	.....
Channels.....	.....	6	.....
Firsts and seconds bevel clump.....	12	36	.....
One row of rivets or sprigs extra*.....	12	6	.....
One row of rivets or sprigs round the forepart and three up middle.....	24	6	.....
<b>Fours to sixes:</b>			
Machine-sewn.....	6	6	.....
Fiddle-waist.....	.....	12	.....
White foreparts.....	.....	12	.....
Black waist and brown foreparts.....	.....	6	.....
Brown waist and black foreparts.....	.....	6	.....
Girls' high-legged boots, all sizes.....	12	12	.....
Copper tips, all sizes.....	6	.....	.....
<b>WOMEN'S SLIPPER WORK.</b>			
Pumps, white and black bottoms.....	60	84	.....
Pumps, brown bottoms.....	60	72	.....
Women's cashmere pumps, with top-piece or spring-heels.....	72	84	72

\* No extra for finishing one extra row on common brown bottoms.

**HUDDERSFIELD.**

Extensively engaged in the woolen manufacture, Huddersfield is celebrated for its production of shawls, flushings, &c. It possesses extensive canal and railway communication and a plentiful supply of water and coal. The number of operatives in the manufacture of woollens in 1871 was 17,297, of whom 11,292 were males and 6,005 females.

The variety and extent of the exports to the United States are indicated by the following—

*Statement showing the exports from Huddersfield to the United States during the year ending June 30, 1873.*

Description.	U. S. gold.	Description.	U. S. gold.
Woolen goods.....	\$2,022,683	Cotton and wool.....	\$56,400
Wool and worsted goods.....	103,333	Cotton and silk.....	1,205
Worsted goods.....	82,328	Sewing cottons.....	149,423
Worsted and silk goods.....	43,517	Fustians.....	3,638
Wool and linen.....	3,551	Flocks.....	64,162
Worsted and cotton.....	9,182	Linen.....	31,454
Wool and silk.....	38,815	Linen and cotton.....	4,263
Wool, silk, and worsted.....	21,381	Half-hair.....	227,507
Wool, cotton, and silk.....	2,219	Chemicals and colors.....	46,220
Worsted, cotton, and silk.....	4,304	Machinery.....	3,719
Mohair and cotton.....	8,697	All others.....	4,810
Mohair.....	1,796		
Mohair and wool.....	4,497	Total.....	3,049,374
Cotton goods.....	110,004		

#### WAGES IN WOOLEN-MILLS.

*Wages paid in a large manufactory at Huddersfield doing business with the United States.*

Occupation.	Sex.	U. S. gold.
Wool-sorters.....	Men.....	\$5 60
Dyers.....	do.....	4 84
Overlookers.....	do.....	\$9 08 to 14 52
Teasers.....	do.....	4 36
Feeders.....	Boys and girls.....	2 18
Engineers.....	Men.....	6 47
Spinners.....	do.....	7 26
Warpers.....	Women and girls.....	2 18
Beamers.....	Men.....	2 18 to 2 90
Sizers.....	do.....	4 84 to 10 36
Timers.....	do.....	4 84 to 19 36
Weavers.....	do.....	5 80 to 3 68
Menders.....	Women.....	3 63 to 4 84
Knotters.....	do.....	4 36 to 6 29
Burlers.....	Girls.....	2 18 to 2 90
Scooters.....	Women and girls.....	2 18
Fullers or millers.....	Men.....	2 06
Tenterers.....	do.....	7 26
Finishers.....	do.....	6 29 to 7 26
Pressers.....	do.....	4 84 to 5 80
Warehousemen.....	Boys.....	1 94 to 3 08
Engine-tenters.....	Men.....	4 84 to 5 80
Firemen.....	do.....	4 84 to 7 26
	do.....	5 80 to 9 08
	do.....	5 32

#### WAGES OF MECHANICS AND FARM LABORERS.

*Rates of wages paid for mechanical and farm labor in the year 1874.*

[Hours of labor vary from 50 to 52½ per week.]

Occupation.	Per week.	Occupation.	Per week.
<b>MECHANICS.</b>		<b>MECHANICS—Continued.</b>	
Blacksmiths.....	\$4 80 to \$6 00	Tanners.....	\$5 76
Bricklayers and masons.....	7 68	Tinsmiths.....	1 30
Cabinet-makers.....	4 80 to 7 20	Wheelwrights.....	\$6 20 to 6 72
Carpenters.....	6 48		
Coopers.....	6 72 to 7 20	<b>FARM-LABORERS.</b>	
Miners.....	8 64	Experienced hands.....	11 20
Machinists.....	4 80	Ordinary hands.....	136 to 72
Painters.....	*11 to 14	Common laborers at other than	
Shoemakers.....	7 20 to 8 40	farm-work.....	160 to 96
Stone-cutters.....	7 20	Female servants.....	172 to 1 32
Tailors.....	7 20 to 9 12		

\* Per hour.

† Per day.

## BRADFORD.

Population in 1871, 145,830.

Bradford, in the West Riding of Yorkshire, is, as was previously stated, the seat of the British worsted trade, and exports largely to the United States. In the years 1872 and 1873, the value of principal merchandise exported from the Bradford consular district to the United States was as follows :

*Statement showing the exports to the United States from the consular district of Bradford, during the respective years ended September 30, 1873 and 1872.*

Articles.	1873.	1872.	Articles.	1873.	1872.
Worsted goods .....	\$12,931,894	\$14,631,176	Yarns .....	\$3,861	\$16,562
Carpets .....	1,020,304	1,911,470	Shawls .....	3,520	5,297
Wool .....	926,362	906,951	Mats and rugs .....	446	562
Machinery .....	167,590	216,793	Velvet .....	1,201	1,075
Iron and steel .....	124,514	105,071	Damasks .....	1,573	.....
Cloths .....	66,558	52,343	Miscellaneous .....	28,402	68,306
Soap-grease .....	11,680	27,252			
Flocks .....	12,511	8,544	Total .....	15,900,266	17,940,402

In addition to the above the value of Bradford goods, invoices of which are certified at Manchester, amounts to about a million dollars, making an aggregate importation into the United States, in 1872, chiefly of worsted goods, from Bradford and vicinity, of about \$19,000,000 in specie, at prime cost. When the freights and other charges, insurance, and duty (of about 60 per cent.) were added, the total currency value of these goods when landed in New York must have approximated \$36,000,000.

In this connection the following extracts from a pamphlet on "Bradford and the Worsted Manufacture," by Mr. George Taylor, will prove interesting :

The whole area of the West Riding worsted manufacture may be included in a triangle, of which the base is a line drawn from Halifax to Otley, and Skipton the apex, containing about 200 square miles. In 1861, the population of this district was 358,698; in 1871, it was 453,047. The term "worsted" is generally said to be taken from a small town in Norfolk, where the manufacture at one time was chiefly conducted. The rapid growth in Bradford and the district which it embraces, of the trade indicated by the word "worsted" has been remarkable, and indeed almost unprecedented. Wool had long been spun by hand in private houses, but it was not till the end of the last century that spinning by steam-power was established in Bradford. The first steam-factory in the town, which was built in the year 1800, had grown, in the year 1871, into 133 worsted factories within the borough of Bradford alone, with 12,807 horse-power, and employing 27,855\* work-people; and, in the whole of the worsted trade throughout the kingdom, into 630 worsted factories, worked by steam-engines of 48,977 horse-power, and employing 109,557 work-people.

## ANNUAL VALUE OF THE WORSTED TRADE.

A careful investigation of the value of this industry was made in 1864, by Mr. Behrens, then president of the Bradford Chamber of Commerce.

The total value, then, of the wool, goats' hair, cotton, &c., manufactured into worsted and woollen yarns and tissues, in A.D. 1864, was £64,400,000. Of this, the worsted portion was £33,600,000, the woollen £30,800,000.

After quoting this estimate, Mr. Taylor continues:

The progress has been great in both respects; and, without going into unnecessary details, an estimate made by the same gentleman, and which is mainly based upon

\* The returns of the census of 1871 give the number of work-people in the worsted trade as 26,598; males, 9,340, and females, 17,258; and in the woollen-cloth manufacture, 6,508 males, and 2,727 females, total 9,235.—E. Y.

the agricultural returns and the board of trade tables for 1872, shows a corresponding extension of the worsted trade during that period. While the available quantity of wool and of similar animal fiber for all purposes was 384,000,000 pounds in 1864, it was last year 500,000,000 pounds, (138,000,000 pounds being of home growth,) of which, probably, 245,000,000 pounds were required for worsted, and 255,000,000 pounds for woollen manufactures, producing in combination with cotton, silk, and other materials, £46,700,000 of worsted yarns and tissues, and £36,100,000 of woollens.

Nothing shows better the great and constant development of the Bradford trade than the amounts exported to all parts of the inhabited globe, which were—

	Yarns.	Worsted tissues.	
In 1842.....	£637,305	£3,556,963	£4,194,268
In 1852.....	1,430,140	4,933,090	6,363,230
In 1862.....	3,662,555	5,881,789	9,544,344
In 1864.....	5,183,229	10,800,521	15,983,750
In 1872.....	6,110,138	20,905,163	27,015,291*

As even a brief mention of the worsted trade would be incomplete without a reference to Sir Titus Salt, to whom more than to any other man is the growth and prosperity of that leading industry due, a somewhat extended notice of the works at Saltaire will appear on subsequent pages.

#### WAGES IN WORSTED-MILLS, BRADFORD.

*Statement of the rates of wages paid to the various operatives employed in manufactories of yarns and textile fabrics in Bradford in 1872.*

Occupation.	Sex.	Wages per week.	Remarks.
Wool-combing:			
Wool-sorters* .....		\$6 77	Long English wool, \$1.44 to \$2.40 per pack.
Wool-washers* .....		5 08	Patent bowl.
Makers-up .....	Men	4 00	Hand-fork, (old way.)
Takers-off .....	Women	2 90	
Comb-minders .....	do	2 78	
Preparers .....	Men	4 11	
Ballers .....	Women	3 63	
Dryers .....	do	2 90	
Jobber .....	Men	4 11	
	Young man 16 to 20 years.	3 15	
Mechanics .....		7 62	
Warehousemen .....		4 36	
Overlooker .....		9 07	For competent person.
Drawing and spinning:			
Drawers .....	Women	2 78	
Rovers .....	do	2 66	
Spinners .....	do	2 90	Minding 3 sides of a frame.
Twisters .....	Women	2 30	Minding 2 sides of a frame.
Bobbin-layers .....	Boys and girls	2 90	
Bobbin takers-off .....	Boys over 14 years	2 30	
Jobber .....	do	2 54	
Reelers, (piecework) .....		2 43	
		9 08	6½ to 7 cents fine counts over \$9.00.
Hank and grossers (piecework) .....		52	
Packers .....		4 11	
Went-men .....		6 53	
Overlooker .....		7 56	For competent person.
Weaving:			
Warp-dressers .....		7 26	
Twisters .....		7 26	
Weavers, (piecework) .....		4 36	\$4.32 per week; men, \$5.76.
Takers-in .....		7 02	
Overlookers .....		7 56	
Pattern-designers .....		10 97	

\* Foreign wool \$2.40 to \$4.80 per pack of 240 pounds.

\* Some portion of this extraordinary increase may be accounted for by the advance in prices which took place in 1871 and 1872.

*Approximate rates of wages and earnings of work-people in the alpaca-mills of Sir Titus Salt, Sons & Co., Saltaire, October, 1872.*

Occupation.	Sex.	Average earnings per week.
Preparing :		
Wool-sorters .....	Men .....	\$6 78 to \$7 98
Wool-washers .....	do .....	3 87 to 4 84
Wool-dyers .....	do .....	4 36 to 6 29
Wool-combers .....	do .....	3 87 to 4 84
Carding and spinning :		
Spinners .....	Girls .....	2 18 to 5 08
Warpers and beamers .....	Women .....	4 84 to 7 26
Reelers .....	do .....	3 39 to 4 60
Overlookers .....	Men .....	7 26 to 8 47
Weaving :		
Weavers .....	do .....	4 84 to 5 81
Burlers .....	Women .....	3 39 to 4 36
Overlookers .....	Men .....	3 15
Warp-dressers .....	do .....	7 74 to 8 96
Engine-room yard cleaners .....	do .....	7 26 to 8 47
Mechanics, such as machinists, carpenters, &c. ....	do .....	4 84 to 6 05
Laborers and watchmen .....	do .....	7 99
Carters .....	do .....	5 81 to 6 78
		6 05

Mr. Titus Salt, jr., who furnished the above figures, states that the workmen are not quite so well off now as they were before the rise in wages, owing to the greater advance in the prices of provisions and especially of coals.

Mr. Bacchus, the resident agent of Messrs. A. T. Stewart & Co., says:

Women in worsted factories earn 18s. and men about 24s. per week. Laborers and the lowest class of workmen earn 20s.; machinists, 28s. per week.

*Mechanics' wages.*—Masons, joiners, plumbers, plasterers, smiths, and painters, 5s. 6d. per day to good workmen for five days in a week and 2s. 6d. on Saturdays; total earnings, 30s., \$7.25.

#### HALIFAX.

Population in 1871, 65,510.

The manufacture of cloth commenced here in the beginning of the fifteenth century, and Halifax ranks next to Leeds and Bradford as a seat of the woollen and worsted industries. But it is best known as the place where the carpet-mills of the celebrated firm of John Crossley & Sons are situated. A visit to these extensive works, when so courteously shown through every department as the author was, amply repays the journey. It is pleasant to recognize patterns of carpets in use in our houses, to note that the most elegant and tasteful patterns belong to several of the leading carpet dealers in the chief cities of the United States, and to be assured that one of them has the best taste in this direction of any dealer in Europe or America. Sir Francis Crossley is deceased, but the present head of the house, Mr. John Crossley, and his partners, possess also a high reputation for business integrity and enterprise and for the benevolent interest taken in their employes and townsmen. A notice of some of the benefactions of the members of this firm, as well as those of Sir Titus Salt, alike celebrated in a kindred industry, will appear on subsequent pages.

The number of hands employed in the chief industries of Halifax, according to the report on the English census of 1871, was as follows:

	Males.	Females.
In woollen-cloth manufacture .....	3,416	1,837
In worsted and stuff manufacture .....	3,421	4,603
In carpet and rug manufacture .....	1,223	734



The following scale of weekly wages in the carpet-mills of John Crossley & Co., Halifax, was sent to the author by that firm at the date indicated :

## WAGES IN CARPET-MILLS, HALIFAX.

Mean rates in  
U. S. gold.

Wool-sorters, 20s. to 28s. ....	\$5 75
Dyers, (very much according to ability and special work.)	
Spinners, boys and girls, from 8s. or 9s. to 13s. ....	4 35
Spinners, men, from 20s. to 30s. ....	6 05
Weavers, men, from 20s. to 35s. ....	8 47
Young women in various employments, from 10s. to 20s. ....	3 63

While the wages are correctly stated above, the margin is too extended. From conversation with weavers employed in these mills, the information was gained that men earned at piecework from 23s. to 24s. per week, and women from 13s. to 14s. It will be observed that these figures are within the limits above given, and are more definite, and may be regarded as the average earnings of male and female weavers. It was stated that girls on regular wages, not on piecework, receive but 10s.; laborers, 18s.; and machinists to repair looms and machinery, from 26s. to 28s. per week; the latter working ten and a half hours per day.

## KIDDERMINSTER, WORCESTERSHIRE.

Although not in Yorkshire, Kidderminster has long been known as the seat of the ingrain-carpet trade, but of late this branch has been transferred to Dewsbury, while Kidderminster now makes the worsted or tapestry carpets. The following statement of the average rates of wages paid in carpet-mills was presented by the proprietors at the date indicated :

*Weekly wages of persons employed in 1872 in the worsted spinning and carpet manufactory belonging to John Brinton & Co., in Kidderminster, England.*

[Hours of labor per week, 59.]

Description of work.	Wages.	Description of work.	Wages.
Engine-room, yard, &c.:		Worsted yarns and fabrics—Con.	
Engineers .....	\$9 68	Gill-box and drawing hands ..	\$2 66
Mechanics .....	\$0 72 to 1 21	Spinners .....	1 31
Laborers, watchmen, and yard hands .....	4 36 to 6 05	Twisters .....	2 05
Foremen .....	9 68	Reelers .....	2 06
Worsted yarns and fabrics:		Overseers .....	2 66
Wool-sorters .....	7 26*	Assistants .....	4 24
Wool-washers .....	4 84	Dyers .....	\$0 56 to 0 64
Combers .....	4 84	Weavers .....	05
		Finishers .....	12 to 14

\* 72 cents to \$1.69 per pack, according to quality of wool.

## AGRICULTURAL-IMPLEMENT WORKS AT IPSWICH.

In the exposition at Moscow, in 1872, a most creditable display of agricultural tools and implements was made by the firm of Bansom, Sims, & Head, proprietors of the Orwell Works at Ipswich, England. In reply to a request for the rates of wages paid in the works, the following letter and statement were received :

IPSWICH, October 12, 1872.

EDWARD YOUNG, Esq., London :

Our books will not enable us, without considerable trouble, to give you the information which you have asked for respecting wages paid in our works to different classes of men, so that, although we have filled up your paper as nearly as we can, yet the fig-

ures must not be taken as strictly correct. The wages vary very much, according to the skill of the workmen, and the average weekly earnings depend very much upon the amount of overtime which the men may make. We may say that we have for a number of years taken the average weekly wages earned by all the men and boys, whether mechanics or laborers, in our employ, and find that it averages 20s. 6d. per week. The proportion of boys under twenty to men is about 3 in 11. The standard hours of labor per week are fifty-four, but this is considerably increased by overtime. The price of coal is also much more than it has been for many years.

We are yours, faithfully,

RANSOMES, SIMS & HEAD.

*Mean rates of wages paid in United States gold to workmen employed in the agricultural-impliment works of Messrs. Ransomes, Sims & Head, Ipswich.*

Occupation.	Wages.	Occupation.	Wages.
Wood-workers.....	\$5 93	Painters.....	\$5 44½
Iron-workers:		Laborers.....	4 23½
Molders.....	6 77	Carters.....	4 35½
Turners or machinists.....	7 50	Apprentices or youths.....	1 93
Blacksmiths.....	6 77	Foremen or overlookers.....	13 31

Hours of labor per week, 54.

On piecework they earn from  $\frac{1}{4}$  to  $\frac{1}{2}$  more.

Rents of 3-roomed tenements, occupied by working people, 72 cents per week.

Present price of coal at works per ton: steam coal, \$7.26; smiths' coal, \$5.33.

#### THE BRICK MAKING TRADE.

The following extract from the report of the inspector of factories for 1874, shows the earnings of work-people at brick-making, and also in the blacking-works:

#### BRICK-MAKING, NEAR MANCHESTER.

By the union tariff, the sum drawn by the molder from the master is now 9 shillings (\$2.16) per thousand bricks, which is thus distributed: to the molder, 2s. 4d., (56 cents,) and the same amount to the temperer; to the wheeler, 2s. 3d., (54 cents;) to the carrier-off, 1s. 0½d., (25 cents;) and the same to the waller.

The molder has also the right to nominate the carrier-off (who is from 13 to 16 years of age) and the waller. The former is generally his son, the latter his wife or daughter. If the molder does not claim his right to nominate, it passes to the temperer; failing him, to the wheeler; and failing all three, to the employer himself.

The average number of bricks turned out by each molder this season has been 500,000 during the 20 weeks; which is at the rate of 25,000 per week of 45 hours, (rather more than one day per week having been lost by rain.)

Thus the earnings have been, molder, \$14.19; carrier-off, \$6.35, and waller, \$6.35; making a total weekly average for the molder, his wife, and his son of \$26.89.

One case of a molder I knew, who turned out 620,000 bricks this season. His son, aged 14, carried them off, and his daughter aged 17, walled them; a second daughter, of 19, worked at another stool. The net weekly earnings of this man and his three children amounted to \$41.00.

The brick-makers, as a rule, are not improvident; the system of leaving back money with the masters is being generally adopted. Some carriers-off, at the end of the season, had £8 to £10 to take.

#### MOSS BROOK BLACKING-WORKS.

The wrappers-up are lads of 16 to 20 years of age; there are 70 of them, each served by two half-timers, or by one full-timer putter-on, at which rate the average weekly earnings are as follows: A wrapper-up, per week, \$4.32; full-time putter-on, per week, \$2.16; half-time putter-on, per week, \$0.96. The total number of persons employed, all boys, is 321.

#### LONDON.

Population in 1871, 3,254,260.

The rates of wages in the metropolitan district, especially those ruling in 1871, are given on preceding pages under the heading "Metropolis." Unlike most of the towns whose industries have been considered, it is

not the seat of any very extensive manufactures which find a market in the United States.

To show the variety, but not the extent, of the exports from London, the following report, made by the United States consul general, Gen. Badeau, to the Department of State, is presented:

*Summary of goods exported from London to the United States of America during the years ending September 30, 1871, 1872, 1873, with a list of the principal articles supplied.*

PRINCIPAL ARTICLES SENT FROM LONDON TO THE UNITED STATES.

Acids, arrowroot, artists' materials, animals of every description, (alive,) alpaca wool, ammonia, ammunition, axes, brass, bronzes, bleaching-powder, blacking, beer, biscuits, buttons, braces, belts, buckles, brushes, bristles, bricks, books, boots, bulbs, baby-linen, brilliants, balls, barometers, braids, bone, bolts, bedsteads, bars, bark, copper, cutlery, clocks, crystals, cabinet-work, carvings, cork, cork-wood, cochineal, chemicals, cement, chalk, chocolate, cocoa, colors, china, coffee, chicory, corsets, carpets, cords, cottons, crapes, cartridges, caps, cards, cricketing materials, castings, candles, cliff-stone, carriages, drugs, druggists' sundries, dogs, diamonds, decanters, emery, essences, essential oils, engravings, earthenware, furniture, feathers, flowers, all kinds of fancy articles, furs, fringes, felt, floor-cloth, fog-signals, flax, flannels, fishing-tackle, granite, guns, gold, gold bronze and leaf, gums, glass, gloves, gutta-percha, gun-waddings, gelatine, gold-beaters' skins, grindstones, hardware, hats, hatters' furs, horse-hair, harnesses, horns, horses, hope, haberdashery, hosiery, human hair, hides, iron, ivory, ink, India-rubber goods, isinglass, jewelry, jet goods, kamptulican, lead, lime, leather, linens, laces of all kinds, linoleum, metals, mustard, mineral waters, manufactures of all kinds, models, moldings, molds, musical instruments, music, millinery, manufactures of leather, matches, milk, machinery, needles, newspapers, oils, oilman's stores, oakum, oxen, oatmeal, platina, precious stones, plated goods, perfumery, powder, provisions, pins, photographs and photographic materials and utensils, paintings, pictures, prints, piano-fortes, paper, periodicals, pamphlets, parchment, playing-cards, paper-waste, pigs, plants, prints, parasols, percussion-caps, pickles, preserves, patent barley, quicksilver, ribbons, retorts, rags, ready-made clothing of all descriptions, rugs, rope, raw silk, steel, skins, spelter, stone, silver, sticks, soaps, sodas, starch, spirits, shells, shell goods, scientific instruments, stationery, stereotype-plates, shoes, sheep, seeds, shirts, silks, sheetings, shawls, straw-plaiting, straw hats and bonnets, string, stuff-goods, sun-shades, sausage cases, sauces, spices, salts, statuary, tin-foil, tin, tea, tapestry, tobacco, toys, tools, umbrellas, veneers, varnishes, vellum, vulcanite, wire, watches and movements, wood, wines, wax figures, wools, woolens, and worsteds.

Year ending Sept., 1871.	Value.	Year ending Sept., 1872.*	Value.	Year ending Sept., 1873.†	Value.
	£ s. d.		£ s. d.		£ s. d.
Dec. 31, 1870.	1,756,998 12 6½	Dec. 31, 1871..	1,930,377 12 10	Dec. 31, 1872..	2,739,304 16 1
Mar. 31, 1871.	2,331,242 16 0½	Mar. 31, 1872..	2,240,674 7 8	Mar. 31, 1873..	2,060,138 7 8
June 30, 1871.	2,248,830 12 3	June 30, 1872..	1,856,446 11 6	June 30, 1873..	1,556,815 9 11
Sept. 30, 1871.	2,320,365 0 0	Sept. 30, 1872..	2,644,485 14 8	Sept. 30, 1873..	1,202,814 0 9
Total.....	8,658,037 0 10	Total.....	8,671,984 6 8	Total.....	7,573,072 14 5

\* Year 1872, £13,047 5s. 10d. more than the year 1871.

† Year 1873, £1,092,911 12s. 3d. less than the year 1872.

DEPTFORD, COUNTY OF KENT.

*Statement showing the average weekly wages (in United States gold) of persons employed in the engineering-works of Messrs. J. Stone & Co., in the town of Deptford, county of Kent, England.*

(Hours of labor per week, 54.)

No. of each class.	Occupation.	Wages.	No. of each class.	Occupation.	Wages.
16	Pattern-makers.....	\$9 19	50	Laborers.....	\$4 36 to \$5 18
12	Brass-molders.....	\$8 71 to 10 16	80	Boys and apprentices.....	1 21 to 2 40
20	Iron-molders.....	9 19		Engineers.....	4 36 to 8 71*
10	Coppersmiths.....	9 19		Laborers or unskilled workmen	4 36 to 5 18
12	Braziers.....	7 26 to 8 71		Apprentices or boys.....	1 80 to 2 40
98	Turners.....	7 26 to 9 19		Foremen or overseers.....	9 68 to 19 36
96	Fitters.....	6 77 to 7 96			

\* And upward.

## NEWCASTLE-UPON-TYNE.

An extended report on the trade and industry of Newcastle-upon-Tyne was prepared for these pages by Evan R. Jones, esq., United States consul for that district, a condensed statement from which is presented in the following pages. "The various tables given in connection with the different subjects treated in the report," Mr. Jones says, "have been prepared with great care, and can be relied upon with confidence."

**NEWCASTLE.**—Newcastle-upon-Tyne, as its name indicates, is situated upon the river Tyne, ten miles west of where that river flows into the North Sea. Formerly Newcastle was the chief town of the county of Northumberland, but by virtue of a charter granted by Henry IV, in the year 1400, it became a county in itself, and is represented in Parliament by two members.

At the last census, taken in 1871, the population of this town was 128,443, to which we must add 48,637, the population of Gateshead; for, notwithstanding the last-named place is in the county of Durham, its interests are identical with Newcastle, and in a commercial point of view we must consider them as one.

The two towns are divided by the river Tyne, and united by three large bridges, including the High-level Bridge, one of the engineering triumphs of Robert Stephenson.

The source of the great wealth of Newcastle and district, which includes North and South Shields, is the rich coal-beds found in the immediate neighborhood. Not only does this commodity contribute toward the prosperity of the Tyne directly; but we are also indebted to its cheap price, in all probability, for the establishment upon the banks of this river of some of the most complete and extensive engineering-works to be found in the United Kingdom, if not in the world. I particularly refer to the Elswick engine and ordnance works of Sir William G. Armstrong & Co.; the ship-building-establishment of Messrs. C. M. Palmer & Co., at Jarrow; the factories of Messrs. Robert Stephenson & Co., and Messrs. R. & W. Hawthorn, for the manufacture of locomotives and other engines and machines, together with some of the largest chemical-works in this country.

**THE TYNE.**—I have repeatedly been informed by masters of American ships that in former years the entrance into the Tyne was both difficult and dangerous, and that the channel of the river was in a shallow and otherwise unsatisfactory condition. I need not remind you that such a state of things must have proved a check both upon the shipping interests and the general commercial growth of the district. Thanks to the river Tyne commissioners, causes for complaints, under this head, no longer exist.

I extract a few brief passages from the "report of Captain E. K. Calver, royal navy, on the improvements effected in the river Tyne." He says:

"The depth of the channel over the bar, which was 6 feet 8 inches in 1849, had been increased by dredging to 15 feet in 1865, the time of one of my periodical examinations. Now there is no bar, as a depth of 27 feet exists along the track in from sea, till the proper channel of the river is reached.

"There is now a minimum depth of 24 feet in that portion of the entrance channel where the 'stones,' with 9 feet over them, formerly existed.

"Briefly stated the result is, that the commissioners have, by the process of dredging, cleared away the bar; they have freed the throat of Shields Harbor from the obstructions which nearly blocked it up; they have removed seven extensive shoals from out of the channel of the river between Shields and Newcastle, and increased the ruling navigable depth between the same limits from 2½ feet to 13 and 14 feet, while, by the consequent tidal gain, they have created a power for assisting in the future maintenance of the increased capacity of the river. These results, of national as well as of local importance, establish the Tyne as the most noteworthy example of river improvement within the bounds of the United Kingdom."

No one questions but what these truly wonderful improvements have greatly contributed toward making the Tyne what it is, and has been for several years, the third among the great shipping rivers of the kingdom, in the number and tonnage of vessels entering and clearing.

**Ship-building.**—Iron-ship-building takes rank next to the coal-trade in magnitude and importance, no less than 20,000 men being employed in the various establishments on the Tyne for the construction of iron vessels.

Among the many extensive works of the kind to be found on this river, the Palmer Ship-building and Iron Company at Jarrow is the largest and most complete. They employ about 8,000 men. Next in importance stands the establishment of Messrs. C. Mitchell & Co., at Low Walker, four miles down the Tyne, where about 3,000 men are employed.

Vessels or an aggregate of 88,000 tons were launched from the various ship-yards on the Tyne during 1871.

*Locomotive and engine works.*—Newcastle-upon-Tyne is the cradle of the locomotive engine. At Wylam, eight miles west of this town, George Stephenson, the inventor of the first successful locomotive, was born in 1781, and in 1824, associated with other men of skill and means, he opened the locomotive-works which have since made Newcastle famous for the manufacture of these engines.

Locomotives and marine engines manufactured here are exported to every country in the civilized world, with the single exception of the United States.

Those who have traveled in England will verify my statement, that both in appearance and in the arrangement of suitable protection for engine-driver and fireman, the locomotives of England, generally, are behind those of America. But in countries where Newcastle engines are brought into competition with those manufactured elsewhere, statistics prove them to be possessed of great merit, both for speed and durability.

The work turned out per annum and the number of men employed at the works of Messrs. Robert Stephenson & Co. and those of Messrs. R. & W. Hawthorn are as follows:

Firms.	Locomotives built.	Marine engines built.	No. of men employed.	Labor per day.
Messrs. Robert Stephenson & Co. ....	52	12	1,400	9 hours.
Messrs. R. & W. Hawthorn & Co. ....	40	(*)	1,700	9 hours.

\* 4,000 horse-power. I was furnished with the number of horse-power, and not the number of engines, by Messrs. Hawthorn.

*The Elswick ordnance and engine works.*—The Armstrong gun, by name at least, is known to nearly every American; comparatively few, however, are aware that the ordnance works of Sir William George Armstrong & Co., where the destructive weapons are forged, are situated at Elswick, in the West End of Newcastle.

Sir William, the son of a born merchant, who once filled the office of mayor of Newcastle, was born at this town in 1810. He was educated for the law, and finally practiced as a solicitor in his native town. But the law had no charms for him; his mind was of the inventive and scientific turn.

His earlier achievements were improvements upon hydraulic engines and cranes; and in 1846 the Elswick engine-works were founded by Sir William and a few friends, chiefly for the construction of that class of machinery. During the Crimean war he invented the breech-loading gun, with which his name will ever remain associated.

At present the Elswick engine and ordnance works of Sir William G. Armstrong & Co. is one of the richest firms, and most completely arranged works on the Tyne, where artillery is manufactured for nearly all the governments of the earth.

The number of men employed in these works are in the neighborhood of 3,000, and are distributed nearly as follows:

Ordnance works, about .....	1, 100
Hydraulic works, about .....	1, 200
Foundry works, about .....	400
Blast furnaces, about .....	200
Officers, about .....	60
Total .....	2, 960

The genius, indefatigable energy, and persevering industry of Sir William Armstrong have brought his gun to such a state of perfection, both in range, precision, and economy of powder, that, by almost unanimous consent, it is acknowledged to be the first of English ordnance.

An ordinary 32-pounder weighs 6,384 pounds, requires ten pounds of powder, and carries a ball 3,000 yards. The Armstrong 32-pounder only weighs 2,912 pounds, requires five pounds of powder, and sends its shot or shell 9,000 yards.

The first pieces turned out by the inventor were lined with steel; wrought iron, in the hand of a master, has since been found to be equally efficient. The Elswick ordnance-works construct guns ranging from a 12-pound field-piece to a 600-pounder, and are possessed of facilities for turning out several cannons per week.

The time occupied in the construction of a 600-pound gun is as follows: Forging, three weeks; for contraction, one week; turning, three weeks; rifling, two weeks; finishing, two weeks; and for extra work, two weeks—total, 13 weeks.

*Glass-works.*—The Tyne Plate-Glass Company, of South Shields, employs 500 hands, at the following rate of wages: Casters, 30s. (\$7.26) to 35s. (\$8.47) per week; finishers and polishers, 35s. (\$8.47) to 40s. (\$9.68) per week.

The quantity of glass produced per annum is about 600,000 feet; present price, 3s. 3d. (79 cents) per square foot.

The works of Mr. John Sowerby, for the manufacture of glass-ware, are situated at Gateshead, just across the Tyne.

There are several leading houses engaged in the manufacturing business, which are also large exporters to America, not yet mentioned; such as Messrs. W. J. Cookson & Co., in the leads, red and white lead, and Venetian red trade, Messrs. Hoyle Robson & Co., manufacturers of pitch, varnishes, paints, &c., and others.

*The alkali trade.*—The alkali trade forms by far the most important branch of the commerce carried on between this district and America. Soda crystals, alkali, and bicarbonate of soda are continually going forward to all the larger ports on the Atlantic coast, and occasionally to San Francisco.

Cheap fuel has induced capitalists to establish some of the largest chemical works in the kingdom upon the banks of this river.

Taking three largest manufactories in the district, viz, the Jarrold Chemical Company, the Tyne Chemical Works, and the works of H. L. Pattinson & Co., I find that together they manufactured during the year 1871, 40,607 tons of soda crystals, 34,720 tons alkali, (refined and unrefined,) and 8,153 tons bicarbonate of soda, besides large quantities of caustic soda, chloride of lime, pearl hardening, and oil of vitriol.

The alkali trade is in a thriving condition. Either through sagacity or by good fortune the manufacturers made large contracts for both salt and coal before the late advance in the prices of those articles took place, and by consequence they are now reaping a rich harvest.

In former years the outlay attending the transportation of salt from the Cheshire beds was nominal; the charges of railway companies to Hull and Grimsby were at a very low rate, and at those places the article was taken in as ballast by vessels bound for the Tyne. However, such a state of things no longer exists; railway charges are high, and regular freight is charged by all vessels bringing salt from Hull and Grimsby to this river; and to-day the price of that article is 27s. (\$6.53) per ton, with an upward tendency. Small coal, which is chiefly used in the manufacture of this class of chemicals, is at present commanding 20s. (\$4.84) to 25s. (\$6.05) per ton. I need scarcely add that these figures are considerably in advance of those at which the fortunate contracts were made.

If manufacturers engaged in what is generally known as the alkali trade were obliged to pay current prices for salt and coal, I conjecture that decomposing the chloride of sodium would yield but a very moderate profit.

The three firms above named employ no less than 4,500 men, at an average wage of 4s. 6d. (\$1.09) per day.

The hours of labor necessarily vary according to the nature of employment. The following exhibits a fair estimate of the working hours of men engaged in the alkali trade: Mechanics, fifty-four hours per week; yard laborers, fifty-eight hours per week; processmen, (excepting decomposing-furnacemen,) twelve-hour shifts. "Overtime" is not allowed until after the full week's time has first been worked. "Piecework" is largely entered into in this as well as nearly every other branch of industry, and the more active and ambitious men frequently realize from 40s. (\$9.68) to 45s. (\$10.89) as their week's earnings.

*Price of labor.*—During the year 1871 a complete revolution took place in the labor market of this country. In the early spring the engineers and machinists of Sunderland, spontaneously and without organization for the purpose, demanded a reduction of the time of labor from 59 to 54 hours per week. The demand was refused by the masters, and the men came out on strike. This might be considered as the keynote of the nine-hours' movement, which resulted in establishing nine hours as a day's work in all branches of industry which admit of its application, throughout the United Kingdom.

Not only have the working-hours been reduced, but in consequence of the increased demand for nearly every natural and manufactured commodity produced in this country, and the very considerable rise in the cost of living, wages have also been gradually advancing, especially since the first of this year. To illustrate this fact I have selected the engineer, as belonging to that class of workmen most closely identified with the great strikes of 1871. An engineer (erector and fitter) while working ten hours a day received only 26s. (\$6.29) as his weekly wage previous to the strike; at present, with nine hours as a day's work, he obtains 30s. (\$7.26) per week.

The following table gives the average prices paid for labor on the Tyne September, 1872:

Occupation.	Wages.	Hours per week.	Occupation.	Wages.	Hours per week.
Carpenters .....	\$8 47	54	GLASS TRADE.		
Joiners .....	7 50	54	Castors .....	\$7 26 to \$8 47	54
Bricklayers .....	7 26	54	Finishers and polishers .....	8 47 to 9 68	54
Stone-masons .....	7 26	54	COLLIERS.		
Plasterers .....	7 26	54	The Durham pits .....	30 cts. per ton.	42
Painters .....	6 78	54	The Northumberland pits .....	42 cts. per ton.	42
Plumbers .....	7 26	54	PRINTING AND BOOK-MAKING TRADE.		
Fitters .....	\$6 78 to 7 26	54	Engravers, first-class .....	\$13 31	....
Blacksmiths .....	7 02	54	Lithographic printers .....	6 78	....
Strikers .....	4 84	54	Compositors and letter-press printers .....	7 26	....
Riveters .....	7 74 to 8 47	54	Book-binders .....	6 53	54
Holden-up .....	5 81 to 6 29	54	Book-folders and sewers, women first-class .....	\$2 42 to 2 90	....
Platers .....	8 47	54			
ALKALI TRADE.					
Mechanics .....	7 26 to 8 47	54			
Laborers .....	4 84	58			
Brass-men .....	6 05 to 7 26	(*)			

\* 12-hour shifts.

*Night-work upon daily papers.*

Ruby, per 1,000 ems .....	17 cents.
Nonpareil, per 1,000 ems .....	16 cents.
Minion, per 1,000 ems .....	15 cents.
Bourgeois, per 1,000 ems .....	15 cents.

Weekly papers are less—12 cents per 1,000, minion, instead of 15 cents.

The prices for day-work are 1d. (2 cents) per 1,000 less than for night-work.

NOTE.—Printers in England measure differently from what they do in America. The width is measured in ems and the depth in ens.

*Wages in iron-ship-building and engineering works.*—The following statement of the wages, ruling at the close of 1874, shows but few changes from the rates of 1872, as given by Mr. Jones. In this, as in a case previously noticed, the difference between the maximum and minimum rates is too great; the mean is not believed to be the true average. For instance, some boiler-makers may earn 38s., but the mean rate, as above stated, 35s., is above the average, which is under 34s. So in regard to laborers; the average is not 22s., the mean rate here given, but 20s. at the utmost.

*Average weekly wages (computed in United States gold and working 54 hours per week) paid to persons employed in iron-ship-building and engineering shops in Newcastle-on-Tyne and vicinity in the year 1874.*

Occupation.	Wages.	Occupation.	Wages.
Iron-molders .....	\$7 74 to \$10 89	Foremen .....	\$10 89 to \$14 53
Machinists .....	{ Best .....	Engineers, fitters .....	6 77 to 8 23
	{ Ordinary .....	Pattern-makers and carpenters .....	7 26 to 8 71
	{ Inferior .....	Assistants .....	5 32 to 5 80
Helpers .....	4 84	Laborers, carters, &c. ....	4 35 to 5 80
Boiler-makers .....	7 74 to 9 19	Apprentices .....	1 45 to 2 90
Helpers .....	6 53	Millwrights .....	7 26 to 8 71
Riveters .....	7 26 to 7 74	Assistants .....	4 35 to 5 80
Holden-on .....	5 80 to 6 77	Brass-founders .....	7 26 to 9 68
Flangers .....	9 68 to 10 89	Brass-fitters .....	6 77 to 7 74
Helpers .....	6 77	Brass-turners .....	6 77 to 7 74
Blacksmiths .....	6 77 to 7 74	Sailmakers .....	7 26 to 7 74
Helpers .....	4 84 to 5 80		

The above list of wages shows what is being paid in the first-class and largest ship-building and engineering establishments in this neighborhood; we ourselves employing some men in all the trades for our making new and repairing old work.

DAVID MOFFAT,

*Master Superintendent.*

NEWCASTLE-ON-TYNE, November 25, 1874.

*Wages in steamers.*—The following scale of wages in steamers belonging to the Tyne Steam Shipping Company, limited, was furnished by Richard Welford, esq., secretary and manager:

Station.	Pay while navigating.		Pay during detention at home.	
	Per week of 7 days.	Per day.	Per week of 6 days.	Per day.
	<i>£ s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Master.....	48 0 0	6 10	30 0	5 0
Mate.. { Chief.....	37 0 0	5 3½	26 0	4 4
{ Second.....	36 0 0	5 1½	35 0	5 10
Carpenter.....	31 0 0	4 5	24 0	4 0
Boatswain.....	30 0 0	4 3½	24 0	4 0
Seamen.....	24 0 0	3 5	24 0	14 0
Cook.....	21 0 0	3 0	21 0	13 6
Steward.....	27 6	3 11	24 0	14 0
Cook and steward.....	60 0	8 7	42 0	7 0
Engineer.. { Chief.....	42 6	6 1	32 6	5 5
{ Second.....	33 0	4 8½	25 0	4 5
{ Third.....	30 0	4 3½	24 0	4 0
Firemen.....	28 0	4 0	24 0	4 0
Trimmers.....			18 0	3 0
Watchman.....			(1)	
Stewardess.....	10 6	1 6		

\* Generally this amount. † Not found. ‡ If a mechanic, 28s. § 3s. extra on Sunday. || Per agreement.

NOTE.—Twenty-four hours before sailing-hour, and twenty-four hours after arrival, vessels are to be considered as in "commission." Detention beyond this time places officers and men on reduced pay. Wages in all cases are to be reckoned and paid by the day.

#### GLASGOW, SCOTLAND.

Population in 1871, 477,732.

Glasgow is the commercial and manufacturing metropolis of Scotland, situated on the river Clyde, which, along its whole course, is beautified by magnificent natural scenery and embellishments of art. Its banks are crowded with the abodes of industry and a thriving population. It was a place of some consideration at the commencement of the twelfth century.

Glasgow now unites within itself a portion of the cotton-spinning and weaving manufactures of Manchester, the printed calicos of Lancashire, the stuffs of Norwich, the shawls and muslins of France, the silk-throwing of Macclesfield, the flax-spinning of Ireland, the carpets of Kidderminster, the iron and engineering works of Wolverhampton and Birmingham, the pottery and glass making of Staffordshire and Newcastle, the ship-building of London, the coal trade of the Tyne and Wear, and all the handicrafts connected with or dependent on the full development of these various and important branches. Glasgow also has its chemical-works, tanneries, rope-walks, dye-works, bleach-fields, paper-manufactories, distilleries, and breweries, beside a vast number of staple and fancy hand-loom fabrics, which may be strictly said to belong to the locality.



While the iron, textile, and chemical products of Glasgow and vicinity are well known, the manufacture of iron machinery, and more recently the building of iron vessels, have given the Clyde a fame which is possessed by no other river.

#### SHIP-BUILDING ON THE CLYDE.

While in the days of wooden vessels the Clyde was noted for the marine-engines built by Napier and others, which attained the highest excellence of workmanship, the introduction of iron as the chief material used in building sea-going vessels, both sail and steam, has more recently rendered this small stream one of the celebrities of the world. From Glasgow to Greenock, twenty miles, the river is almost lined with ship-yards, working to their full capacity in the building of merchant-ships.

There are in all twenty-eight yards on the Clyde, and these have launched during the year 227 vessels in all, with an aggregate tonnage of 224,000. The following table will specify the classes of vessels and tonnage of each class for 1872:

STEAMERS.		
	Number.	Aggregate tonnage.
Paddle-wheel .....	10	6,200
Screw .....	146	198,800
Hoppers and dredges .....	5	1,900
SAILING.		
Iron .....	11	12,500
Composite .....	1	300
Wood .....	12	1,700
Barges .....	14	600
YACHTS.		
Steam .....	8	1,600
Sailing .....	20	400
Total .....	227	224,000

The larger of these vessels are destined to the following services: For the East Indian and China trade, 38; West Indian trade, 6; South American, 18; New York, 10; New Orleans, 6; Canadian, 7; African, 8; Mediterranean, French, and Spanish, 30. The others are chiefly coasters.

The following is the aggregate tonnage launched from the Clyde yards during each of the last ten years.

1863.....	124,000	1868.....	169,571
1864.....	178,505	1869.....	192,300
1865.....	153,932	1870.....	180,401
1866.....	124,513	1871.....	196,229
1867.....	108,024	1872.....	224,000

The year 1872 has been the most prosperous one in ship-building yet experienced on the Clyde. Although the number of vessels launched has not been quite up to each of the last few years, the tonnage exceeds 1871 by 28,000 tons and 1870 by 34,200 tons. The increase of last year has been larger than any yearly increase for many years past, and has been entirely in the class of screw-steamers. The year's tonnage of screw steam-vessels is 40,800 tons above 1871; 67,000 tons above 1870; 73,000 tons above 1869; and 77,500 tons above 1868. But while the screw-vessels have so enormously increased, all the other classes seem on the decline. In the building of war-vessels, 1872 has been a blank on the Clyde. In paddle-steamers there has been a considerable decline,

and the year only shows 6,200 tons as against 10,900 tons in 1871; 10,150 tons in 1870; 8,300 tons in 1869; and 6,300 tons in 1868. In yacht-building there has been a good trade, chiefly in screw steam-vessels.

#### CLYDE SHIP-BUILDING DURING 1873.

[Condensed from an article in the London Economist of March 14, 1874.]

When the movement for reducing the hours of labor in the engineering and ship-building trades was in progress a couple of years ago, followed or attended, as it was, with an advance of wages, there were many persons who, like "birds of ill omen," prognosticated a sudden collapse in the great ship-building industry of the Clyde, but, strange to say, notwithstanding the past year, 1873, has been the most extraordinary one that has ever been experienced in the whole history of that industry, and has most completely falsified all the evil prognostications, when we compare the tonnage launched during the whole of 1873 with that launched in 1872, the result of the contrast is surprising. In making the annual summary statement regarding the Clyde ship-building trade, it is customary to embrace all the vessels shipped in pieces, barges, and most of the small vessels in the December return; and doing so now we find that the December tonnage for each of the four years, 1871-73, is as follows: 1870, 61 vessels of 23,100 tons; 1871, 76 vessels of 22,300 tons; 1872, 50 vessels of 26,300 tons, and 1873, 46 vessels of 33,500 tons. This last monthly total, therefore, brings up the work done during 1873 to 194 vessels of an aggregate of 261,500 tons, as against 227 vessels of 224,000 tons in 1872, 231 vessels of 196,200 tons in 1871, and 234 vessels of 189,800 tons in the year 1870.

A brief examination of these returns brings out some very interesting facts. First, we notice that extending over a series of four years, while the number of vessels has fallen from 234 to 194, the tonnage of vessels has increased from 189,000 tons to 261,500, the increase upon the four years being 71,700, or considerably more than one-third of the whole tonnage launched in the year 1870. Within the short period of four years, therefore, the average size of vessels built on the Clyde has advanced from about 811 tons to about 1,348 tons, which indicates such a radical revolution in the mechanical arts as but comparatively few persons could have confidently calculated upon at the commencement of that brief period.

The question of "paddle versus screw" has again come to the front in connection with the ship-building statistics now under consideration. *Paddle-steamers*, as to tonnage, were nearly stationary in 1870 and 1871, being between 10,000 and 11,000 tons; they fell off in 1872 to rather over 6,000 tons, but last year they again rose to 19,100 tons, which was a very considerable increase. It was due, however, almost entirely to the demand made by the *China Steam Navigation Company of Shanghai*, which had no fewer than five large paddle-steamers supplied to them of 1,250 up to 3,200, and 200 up to 400 horse-power, or in totals 12,410 tons and 1,450 horse-power.

Of *screw-steamships* there were 125 launched during 1873, of an aggregate of 218,000 tons. These numbers show that the average size of the Clyde-built screw-steamers has risen to 1,744 tons, which is a very extraordinary fact. For its explanation we must refer to the very large number of first-class ocean steamers built during the year for various great mercantile companies. The *Pacific Steam Navigation Company*, for example, were supplied with nine new steamers as the year's addition to their already magnificent fleet. One of them was a vessel of 4,820 tons and 650 horse-power, and the totals were 28,895 tons and 4,500 horse-power. No fewer than six of these great ocean steamers were built by Messrs. John Elder & Co. This is the largest amount of tonnage ever supplied in a single year to any shipping company.

There was a marked increase in the amount of tonnage launched in 1873 under the head of *iron sailing-vessels*. As compared with 1872, there was only one additional vessel, making twelve in all, but there was an increase in the aggregate tonnage from 12,500 tons to 19,000, most of the vessels of the class ranging from 1,550 to 1,920 tons, which are certainly extraordinary sizes for sailing-vessels.

[From the Glasgow Daily Mail.]

The total number of vessels of different classes launched on the Clyde during the year 1874 amounted to 187, with a gross tonnage of 244,467. This, as compared with last year, shows an increase of 17 in the number and a decrease in the tonnage of 2,375. In the class of *sailing-vessels*, as compared with the previous year, there is an increase in number of 29, with an increase in tonnage of 33,710. *Paddle-steamers* have decreased in number by four, and in gross tonnage by 8,651. The number of *screw-steamers* launched during 1874 has been only one less than that of the previous year, while the gross tonnage of these vessels shows a decrease of 29,229. From this it would appear that the average tonnage of the screw-steamers built on the Clyde this year has been much below that of those built during the previous year. As compared with 1864, the number of vessels shows a decrease of 18, while there is an increase in the tonnage of 64,959.

## EXPORTS FROM GLASGOW TO THE UNITED STATES.

During the year ending June 30, 1872, the imports into the United States from Scotland, chiefly from Glasgow, were as follows :

Pig iron, (135,695 tons).....	\$2, 305, 183
Old and scrap iron .....	344, 033
Steel rails .....	484, 723
Steel ingots, bars, &c .....	117, 065
Steel manufactures.....	271, 474
Cotton goods .....	839, 887
Other cotton manufactures .....	2, 206, 318
Flax, raw .....	208, 082
Flax manufactures .....	3, 740, 148
Jute manufactures .....	313, 206
Chemicals .....	300, 933
Sugar, brown .....	316, 351
Other articles.....	2, 894, 164
Total, 1872.....	14, 341, 572
Total, 1873.....	14, 344, 770
Total, 1874.....	12, 166, 452

## RATES OF WAGES.

Mr. Consul Jenkinson, in transmitting to the author a statement of the rates of wages at the close of the year 1872, makes the following remarks in regard to the cause of the fluctuations in the price of labor :

UNITED STATES CONSULATE,  
Glasgow, January 1, 1873.

HON. EDWARD YOUNG,  
Chief of Bureau of Statistics.

SIR: The condition of the laboring classes in Scotland is a subject well worthy the careful study of all who are interested in solving the great problem of labor in the United States. The last three years have been years of unceasing strife between capital and labor, the employers and the employes. "Locking-out," as it is termed, on the one side, and strikes on the other, have been of almost daily occurrence. As the capital of the country is in the hands of comparatively few, these can readily combine to put down the wages of labor, thus forcing the laborers into combinations and "unions" to put them up again. Nearly every trade has its "union," and almost every locality its combination of these unions. All classes alike suffer from these ceaseless contentions between master and man. For instance, for some months past a struggle has been going on between the miners of this district and the proprietors of the coal-mines, resulting in great loss to the proprietors, destitution and suffering to the miners and their families, and an extraordinary rise in the price of coals to the public. Coals which sold here at retail one year ago for 16s. per ton are now selling at 36s., an increase of more than 100 per cent. But the trouble ends not here; iron and many other things, in the manufacture of which coals largely enter, have enormously advanced in price. And what are manufacturers to do? They supply a foreign market, in which they can successfully compete only by selling as low as or lower than others. High prices for labor and material at home will require high prices abroad. If they demand these, others will undersell them and take their trade, while, if they fail to get the advance, they must close their works at home. High wages are, therefore, impossible with them. And this explains in a word the lamentable condition of the laboring man in this country, and his utter inability to elevate his condition. He must work for a mere pittance, to enable his employer to sell his goods abroad at low rates, or there will be no work for him to do, and he will be left to starve.

The strikes of the last few years have considerably advanced the wages paid to skilled labor in Glasgow; still, to an American mechanic the prices now received would seem exceedingly low. In some instances the best workmen get from 30s. to 33s. per week, but the average pay of mechanics, such as blacksmiths, carpenters, masons, tailors, &c., is not more than 27s. per week, equivalent to \$6.53 in United States gold.

*Wages in engineering works in 1872.*—The following figures show the average rates of weekly wages paid to workmen in engineering and ship-building trades in Glasgow :

Occupation.	Wages.	Occupation.	Wages.
Pattern-makers.....	\$6 62	Carpenters.....	\$6 94
Turners.....	6 40	Smiths' finishers.....	5 97
Planers.....	6 13	Painters.....	5 30
Drillers.....	4 74	Ship riveters and calkers.....	6 42
Finishers.....	6 11	Ship-smiths.....	6 20
Fitters.....	6 27	Holders-on.....	3 90
Smiths.....	6 64		
Hammermen.....	4 54	Average of all classes.....	6 11
Platers.....	7 70		
Riveters.....	6 96	Unskilled labor.....	{ 3 63
Calkers.....	6 96		{ 6 05
Joiners.....	6 40	Common labor outside of works.....	{ 3 38
Sawyers.....	5 52		{ 3 67

*Works of John Elder & Co.*—The author went to Glasgow from Liverpool on purpose to obtain trustworthy information in regard to the cost and condition of labor in the ship-yards and engineering-works on the Clyde. The facts and figures immediately preceding were obtained afterward and forwarded at the date indicated, as well as more extended information as to the condition of the working classes in Glasgow, which will be found under its appropriate head. The following extract from the author's note-book affords some information in regard to a well-known firm which has recently forwarded one of the most valuable statements in this report:

GLASGOW, October 15, 1872.

Reached here this morning after an uncomfortable night-journey from Liverpool, in an unwarmed car. Having been furnished with a letter of introduction to Messrs. J. Elder & Co., one of the most eminent iron-ship-building firms, we crossed one of the bridges over the Clyde, examined their upper works, and rode down about three miles to their yard; were courteously received by one of the partners, who conducted us through every part of the works, explaining every process, from the drawings and models to the finished ship ready for launching. The demand for iron vessels has become so great that this firm and nearly all the other builders are working to their utmost capacity. A steamship which had already received part of her plating was on the stocks, from which another had been launched but thirteen days previously. The ships of the National Line, plying between Liverpool and New York, were built by this firm, and are of great strength and entire seaworthiness, [as we afterwards ascertained by a return-passage in one of them.] The tools and machines in use in Elder's works were fully equal and a few superior to those in Laird's well-known establishment, which I visited on the previous day.

The increase in wages and in iron and other materials has greatly enhanced the cost of building iron ships. One nearly completed was pointed out for which the builders were to receive £130,000, of the same size as another which had previously been built on the same spot for £91,000. True, there were some changes made in the construction of the higher-priced vessel, which enhanced her cost to some extent.

The great demand for Clyde-built ships has not been caused by their superiority, (for, no doubt, those of Newcastle, Birkenhead, and Belfast are equally as good,) but from the fact that they can be built at less cost, owing in part to the cheapness of materials, but chiefly to the abundance of skilled workmen and the low rate of wages paid to them. True, there has been a large advance in labor, averaging about 15 per cent., but it has been no greater, proportionately, than in England, thus leaving the relative rates as before.

As some changes in the rates of wages, as well as in the price of iron ships, have since taken place, the figures then obtained are not presented here. The following statement, however, gives in detail the number of men in each branch or subdivision of labor in the ship-yard and in the engineering and boiler works respectively, and the rate of wages paid to each.

The average rates are computed in United States gold and the gen-

eral average of skilled workmen given, which amounts to \$7.07½ in the engineering-works and \$7.13 in the ship-yard; or to \$7.96 and \$8.02, respectively, in lawful money of the United States.

*Average weekly wages (per week of 51 hours) paid to persons employed in the engineering and boiler works, and in the ship-building yard of John Elder & Co., at Glasgow and Goran, in the year 1874.*

ENGINEERING AND BOILER WORKS.			SHIP-BUILDING YARD.		
Average number.	Occupation.	Wages.	Average number.	Occupation.	Wages.
	Machinists:		119	Fitters	\$7.12
16	Best	\$7.50	226	Helpers	4.10
223	Ordinary	6.70	14	Angle-iron smiths	6.75
222	Inferior	5.38	13	Helpers	4.10
28	Helpers	4.05	73	Ship-smiths	6.65
68	Pattern-makers and joiners	7.72	100	Helpers	4.25
49	Turners	7.30	146	Riveters	6.65
220	Engine-fitters	6.82	152	Holderson	4.10
33	Blacksmiths	7.26		Rivet-boys	1.60
44	Hammermen	4.56	64	Calkers	6.64
4	Millwrights	7.90	83	Drillers	4.72
230	Apprentices	2.54	266	Joiners	7.98
167	Laborers	4.10	37	Apprentices	2.30
7	Brass-founders	8.74	12	Cabinet-makers	8.22
5	Foundry dressers	5.40	7	Pattern-makers	7.98
9	Foundry laborers	4.35	8	Blockmakers	7.12
12	Brass-finishers	6.76	37	Machinists	6.17
5	Coppersmiths	8.22	256	Carpenters	7.98
2	Crane-men	6.05	40	Apprentices	3.05
6	Riggers	6.17	25	Boat-builders	8.22
34	Boiler-makers	7.98	43	Iron-finishers	7.12
54	Riveters and calkers	7.00	15	Brass-finishers	7.12
16	Holderson	4.64	10	Mechanics	6.65
4	Flangers	7.74	25	Plumbers	7.74
19	Blacksmiths	6.52	13	Tin smiths	6.62
24	Hammermen	4.60	59	Painters	7.74
28	Apprentices	3.50	45	Rod-leaders	4.66
38	Rivet-boys	1.66	45	Riggers	6.92
126	Laborers or helpers	3.87	227	Laborers	4.10
10	Foremen, (engineer, &c.)	14.64	13	Carters	5.80
6	Sundry	13.94	9	Furnace-men	4.96
			25	Foremen	10.29
	Average of 582 skilled workmen	7.07½		Average of 1,407 skilled workmen	7.13

#### DUNDEE, SCOTLAND.

Dundee has been celebrated for its manufactures of linen and hempen fabrics, chiefly of the coarser descriptions. The manufacture of linen appears to have been introduced from Germany in the beginning of the last century. Insignificant in extent at first, it gradually increased until the close of that century, when machinery having been applied to the spinning of flax, a great impulse was given to it. Hand-spinning has been entirely superseded by machine-spinning. The chief articles of manufacture are shirtings, sail-cloth, dowlas, sacking, and bagging.

Dundee is now best known as the seat of the jute manufacture, including all kinds of jute carpeting. Manufactures of jute are almost exclusively carried on here. The consumption in Dundee of this material, which is grown in India, amounts to nearly 40,000 tons annually.

As the raw material is inexpensive, costing in Dundee from 2 to 3 pence per pound, the cloth made from it, reckoned by weight, is the cheapest textile fabric made in Great Britain. Of jute many varieties of fabrics are made, from the coarsest mail-bagging to carpets of great beauty. This range includes pack-sheets for every species of merchandise, sacks for wool, coffee, and guano, &c.

The annual value of the flax, hemp, and jute manufactures in Dundee is upward of £3,000,000.

Dundee is also famous for its manufacture of confectionery, which is exported to all parts of the world.

Ship-building and machine-making are carried on to some extent.

The author was unable to make a personal examination of the jute industry, although strongly urged by Mr. Consul McDougall in the following extract:

DUNDEE, June 10, 1872.

Permit me to press upon you the necessity (if at all possible) of your visiting this city. The jute manufactures here, to the extent of three-fourths of the whole quantity manufactured, go direct to the United States. The quantities made are something enormous. They are peculiar to Dundee alone, and the machinery in operation is so attractive and powerful that it is of the utmost importance that the bureau which you represent should be fully apprised of the Dundee jute and linen manufactures. Indeed, I am bound to say that in no other city will you receive such useful information, and of such paramount importance to the United States, as you will receive here.

Mr. McDougall forwarded the following statements of the rates of wages which obtained in Dundee at the periods indicated:

### FACTORY-LABOR.

*Wages paid per week at Dundee, Scotland, the seat of the jute and linen trades, October, 1872.*

Occupation.	Per week.		Occupation.	Per week.	
	Hours of labor.	Wages in U. S. gold.		Hours of labor.	Wages in U. S. gold.
Jute-spinning, preparing flat:			Joiners.....	51	\$6 29
Foremen.....	58	\$6 53	Blacksmiths.....	51	6 77
Women.....	58	\$2 18 to 2 43	Masons.....	51	\$7 99 to 8 47
Boys, 12 to 15 years.....	58	1 69 to 1 93	Laborers.....	51	4 11 to 4 84
Jute spinning flat:			Plasterers.....	51	5 81 to 6 05
Spinners, women.....	58	2 48 to 2 66	Plumbers.....	51	7 28
Piercers, girls, (12 to 15 yrs.)	58	1 81 to 1 93	Brass-finishers.....	51	6 05
Shifters, girls, (12 to 15 yrs.)	58	1 57 to 1 69	Molders.....	51	6 78 to 7 74
Half-timers, boys and girls, (7 to 12 years).....	58	36 to 66	Bakers.....	60	6 29 to 6 78
Bobbin-winders, women.....	58	2 66 to 2 90	Painters.....	51	5 81 to 7 26
Cop-winders, women.....	58	2 66 to 3 14	Shoemakers.....	54	6 29 to 7 26
Warpers, women.....	58	2 90 to 4 12	Tailors.....	60	5 81 to 6 78
Power-loom tenters, men.....	58	6 53 to 7 26	Domestic servants:		
Power-loom weavers, women.....	58	2 66 to 3 38	Housemaids.....		\$8 08 to 67 76
Machinists.....	51	6 29 to 8 71	Cooks, women.....		\$9 60
			Gardeners, men.....	60	5 33 to 5 56

\* Per year, with board.

*Average rates of wages per week paid to the different workers employed by a jute-weaving establishment at Dundee, February, 1875.*

Occupation.	Wages per week.			Occupation.	Wages per week.		
	Lowest.	Highest.	Average.		Lowest.	Highest.	Average.
Jute-pickers.....	.....	.....	\$4 72	Single-loom weavers.....	.....	.....	\$2 54
Strikers-up.....	.....	.....	3 15	Double-loom weavers.....	.....	.....	3 51
Hand at softeners.....	\$2 48	\$3 51	3 02	Tenters.....	\$8 05	\$7 02	.....
Preparers.....	2 18	2 90	2 48	Starohers.....	5 81	6 53	.....
Spinners.....	.....	.....	2 46	Mill-overseers.....	6 05	7 74	.....
Coarse spinners.....	2 66	2 90	.....	Calendermen:			
Piercers.....	.....	.....	1 87	Lappers.....	4 84	5 69	.....
Shifters, (half-timers).....	68	76	72	Calenderers.....	4 84	5 81	.....
Reelers.....	2 12	3 15	2 78	Measurers, tiers, &c.....	4 36	5 57	.....
Cop-winders.....	2 42	3 39	3 02	Mechanics.....	.....	.....	6 53
Warp-winders.....	2 78	3 39	3 15	Joiners.....	.....	.....	6 29

*Statement showing the rates of wages paid for mechanical and farm labor in the consular district of Dundee during the year 1874.*

## MECHANICAL LABOR.

Occupation.	Wages per week.	Occupation.	Wages per week.
Blacksmiths .....	\$5 76 to \$6 24	Plasterers .....	\$8 16 to \$8 64
Bricklayers and masons .....	8 40 to 9 60	Shoemakers .....	6 00 to 8 40
Cabinet-makers .....	6 00 to 7 20	Stone-cutters .....	8 40 to 9 60
Carpenters .....	7 20 to 7 68	Tailors .....	6 00 to 7 20
Coopers .....	6 48 to 7 20	Tanners .....	5 28 to 6 00
Miners .....	10 00 to 12 00	Tin-smiths .....	5 32 to 6 48
Machinists .....	6 00 to 7 00	Wheelwrights .....	6 72 to 7 20
Painters .....	6 72 to 7 20	Hours of labor per week, 51.	

## FARM AND OTHER LABOR.

	Wages per month.
Farm-hands. { Experienced .....	\$12 40 to \$15 00, with board.
{ Ordinary .....	11 20 to 12 40, with board.
Common laborers at other than farm-work .....	23 84 without board.
Female servants .....	4 20 to \$10 00, with board.

Mr. P. Fleming, of Dundee, emigration agent, when in Washington, furnished the following rates of wages, per week of fifty-one hours, obtained in that town in 1872:

Occupation.	Wages.	Occupation.	Wages.
Mechanics .....	\$6 05 per week.	Overseer .....	\$6 05 to \$7 26 per week.
Molders .....	6 78 to \$7 26 per week.	Joiners .....	5 81 to 6 03 per week.
Weavers .....	2 90 to 3 38 per week.	Plasterers .....	6 17 per week.
Spinners .....	2 18 to 2 42 per week.	Masons .....	14 per hour.
General hands, (female). .....	1 94 to 2 18 per week.	Painters .....	13 per hour.

## LEITH, SCOTLAND.

Population in 1871, 44,280.

This is the sea-port of Edinburgh, from which it is only about a mile and a half distant. The water of Leith, at its confluence with the Frith of Forth, divides the town into two parts, called, respectively, North and South Leith. The principal buildings are the exchange, the custom-house, the town-house, the church of South Leith, and the forts—a military station for a small body of artillery.

The chief manufactures of Leith are ropes, sail-cloth, locomotive-engines and machinery, glass, soap, ale, refined sugar, and oil-seed cakes. Iron and timber ship-building is also carried on to a considerable extent.

## RATES OF WAGES IN 1872.

The following statements, showing the rates of wages paid in 1872 for mechanical and agricultural labor in the Leith consular district, which includes the city of Edinburgh, were furnished by Mr. Consul Robeson:

## MECHANICAL LABOR.

Statement showing the rates of wages paid to mechanics in Leith, Scotland, in October, 1872.

Classes of operatives.	Working-hours per week.	Weekly wages.	Remarks.
I. Masons .....	51	\$6 95	Wages of masons are greatly reduced by what is called "broken time," arising from unfavorable weather, and the average weekly earnings of this class of tradesmen throughout the year may be stated at \$6.05.
II. Joiners .....	51	6 75	Average wages, 13 cents per hour. Working-time: 9 hours for 5 days and 6 hours on Saturdays. Overtime paid at the rate of 10d. (90 cents) per hour. Teams one week's warning. This class of mechanics is not so liable to loss from broken time as masons.
III. Plumbers .....	51	6 75	No broken time.
IV. Blacksmiths .....	51	6 05	Do.
V. Plasterers .....	51	7 90	Wages of plasterers, like those of masons, are greatly reduced during the year by broken time, arising from unfavorable weather, and the average weekly earnings of this class may be stated at \$6.25.
VI. Tinsmiths .....	51	6 25	No broken time.
VII. Bootmakers:			These wages obtain all the year round. The hours during which these classes work throughout the year are as follows: Feb. 15 to Nov. 9, 9 hours for 5 days and Saturdays 6 hours; Nov. 9 to 27, 8 hours for 5 days and Saturdays 5 hours; Nov. 27 to Jan. 11, 7½ hours for 5 days and Saturdays 4 hours; Jan. 11 to Feb. 15, 8 hours for 5 days and Saturdays 5 hours.
Closers .....	57	7 26	
Makers of gentlemen's boots .....	60	6 78	
Makers of ladies' boots .....	60	6 05	
Jobbers .....	60	5 32	
VIII. Linen-manufacturing operatives:			
Skilled workmen .....	51	\$0 84 to 1 21 per day.	According to ability. This class has no broken time.
Mechanics, tenters, &c. ....	51	\$0 84 to \$1 21 per day.	Do.
Young women and girls .....	51	2 42, \$3 39, and \$3 87.	Do.
IX. Engineers and millwrights:			Extra time is paid for according to circumstances: usually "time and a quarter" and 1d. (2 cents) per hour as an allowance over and above. These operatives are not liable to broken time.
Best hands .....	51	7 26	
Second-class hands .....	51	6 77	
Third-class hands .....	51	6 05	
X. Painters:			
Journeymen house-painters .....		6 67	
Grain-men and ornamental painters .....		15 cts., 36 cts., and 48 cts. per hour.*	72 cents extra per week allowed to each man working 1½ miles or upward from the center of the town; also railway-fares to and from work when necessary.
Boys .....		\$0 73	Boys get 3s. first year, and wages raised, according to ability, to \$2.42 and \$2.90 per week during apprenticeship of 6 yrs.
XI. Printers and binders in Edinburgh:			
Compositors .....	54	\$6 89 to 7 26	
Letter-press-machine men .....	54	6 78 to 7 26	
Letter-press boys .....	54	1 21 to 1 45	
Letter-press girls .....	54	1 45 to 2 90	
Lithographic-machine men .....	54	6 90 to 7 74	
Bookbinders .....	54	7 26 to 8 47	
Girls .....	54	1 94 to 2 90	
Sewers and folders .....	54	1 45 to 3 15	
Apprentices .....	54	60 to 1 21	
The following are the rates of wages paid in the office of the Daily Scotsman:			
Compositors { Regular day-hands .....	52½	7 86	These day-hands work usually 8 hours extra time during the week, for which they are paid at the rate of 1s. per hour; hence their weekly wages amount to 40s. 6d. No broken time.
Regular night-hands .....	48	9 68	
Casual day-hands .....	52½	7 26 to 10 40	According to ability.
Casual night-hands .....	48	8 47 to 13 31	According to ability; hours, 8 p. m. to 4 a. m.; ¼ of an hour off.

\* According to ability. † The principal Edinburgh paper, if not the most influential paper in Scotland.



Statement showing the rates of wages paid to mechanics in Leith, &c.—Continued.

Classes of operatives.	Working hours per week.	Weekly wages.	Remarks.
Rates of wages paid in the office of the Daily Scotman.—Continued.			
Machinists .....	52½	\$9 68	
Machinists, feeders, (boys, 16 to 24 years.)	52½	\$3 87 to 4 36	
In the establishment of the Edinburgh Courant.			
XII. Carters .....	51	4 84	Day-compositors are paid at the rate of 6d. and 6½d., and night-compositors 7½d. and 8d., per 1,000 types, according to size. This obtains all the year round.
XIII. Laborers .....	51	4 88	Masons' laborers average weekly wages throughout the year may be stated at \$3.84. Day-laborers in country and land-ward districts are paid at the rates of 73 cents and 84 cents per day, but taking into consideration the broken time to which they are exposed, the average weekly earnings of that class do not exceed the sums of \$3.84 or \$4.08. Some classes of laborers have little or no broken time, but it is estimated that the average weekly earnings of a laborer in Scotland may be stated at from \$3.36 to \$4.32 per week.

#### AGRICULTURAL LABOR IN SCOTLAND.

Table showing the earnings of agricultural laborers in Scotland.

Class.	*Annual earnings.			Per week, all the year round.
	In money.	In gains.	Total.	
Farm-stewards .....	\$101 64	3½ loads oatmeal, at 40s., £6 10s.; 12 bushels barley, at 4s., £2 8s.; 1,600 yards ground for planting potatoes, £4; cow kept, £7; house and garden, £3; coals, £2; harvest meat, £1 .....	\$226 00	
Farm-hinds .....	89 28	do .....	207 63	
Farm-shepherds .....	116 88	do .....	248 24	
Foresters:				
Overseers .....				\$5 08
Ordinary hands .....				3 63

\* These are the wages, &c., actually paid to the farm-servants on a farm about 25 miles distant from the city of Edinburgh, and may be stated as a fair average of the annual earnings of farm-servants in the southwestern part of Scotland. Besides these wages, farm-servants (hinds) usually keep one or two pigs, and are provided by their masters with the necessary straw for "bedding" free of charge. It is of importance to observe that the farm-servant has no broken time from sickness or inclemency of weather, &c.

There is a class of agricultural laborers known as "bendagers," a class of farm-servants almost peculiar to Scotland. These are females, young women who work at field labor. For the summer half-year their money-wages is from £8 to £10, according to experience and ability; and for the winter half-year £6 to £8; that is, in the former case, \$38.72 to \$48.40, and in the latter, \$29.04 to \$38.72. In addition to this wage they have bed, and board, and washing. On some farms it is imperative on the hind to provide a bendager for field-labor, and he hires one accordingly. The bendager lodges in the hind's house and shares the family living. For her services on the farm the farmer pays the hind at the rate of 30.2 cents a day for nine months of the year, and 24.2 cents per day for three months, with an allowance of \$4.84 for harvest-food,

and \$2.42 per week for four weeks during harvest operations, in lieu of the ordinary rate of 30 cents per day. This system of bendage is a fruitful source of complaint among the hinds, whose circumstances are, in these days of dear provisions, greatly stinted by being thus, as it were, each compelled to maintain a female worker for the farmer. In many districts the bendage system has been dispensed with altogether, and it is gradually becoming a thing of the past. It is evident that the condition of the bendager, so far as regards remuneration, is much better relatively than that of her master, the hind.

## IRELAND.

Ireland has of late years been regarded as an agricultural country, and while it is possessed of cheap labor and other facilities for carrying on manufacturing with success, has not, for various reasons, kept pace with the countries across the Channel, especially since the introduction of machinery. The manufacture of linens, which has its seat at Belfast, and of Irish poplins, which are produced in Dublin, are industries widely known and highly celebrated. To a limited degree cotton, wool, and worsted fabrics are produced; as is also lace in Limerick. Great progress has been made within the last few years in the manufacture of embroidered muslin, which employs about 300,000 persons, principally females. The annual value of the manufactured goods amounts to £1,400,000. Indeed, at the present time the established branches of production and commerce are taking a wide sweep. A better system of agriculture has, within a brief period, been introduced, and with it a larger demand, and consequently a better remuneration for labor. The immense emigration, chiefly to the United States, as appears from a statement on page 241, has not only served to improve the material condition of the emigrants, and reacted on Ireland by the increased wealth and position of those who have sought fortune in other lands, but by reducing the excess of population, has largely advanced the rates of wages of those who remain at home.

## WAGES OF IRISH FARM LABORERS.

The following information in regard to the wages of farm laborers in Ireland appears in the journal of the Statistical Society of London, March, 1870, and is computed in United States gold :

Counties.	Per day.		Per week.		Per year.
	With board.	Without board.	With board.	Without board.	With board.
Cork, Limerick, Waterford ..	\$0 24 to \$0 61	\$0 97	\$0 73 to \$1 46	\$1 70 to \$2 43	\$38 93 to \$48 67
Antrim, Armagh, Down, Londonderry, Tyrone ..	.....	.....	.....	.....	24 33 to 48 67
Dublin, Wicklow, Kildare ..	85 <sup>a</sup>	.....	.....	.....	.....
Meath, Queens, Wexford ..	.....	.....	97	1 70	.....
Louth, Cavan, Down ..	17 to 24	\$0 24 to 49	1 46	2 43	.....
Kings, Longford, Roscommon ..	.....	24 to 37	1 56	1 92	38 93
Westmeath ..	37 to 85 <sup>a</sup>	.....	.....	.....	.....
Donegal, Fermanagh ..	.....	30 to 61	.....	.....	48 67 to 73 00
Clare, Galway, Kerry, Limerick ..	.....	37 to 49	.....	.....	.....
Cork ..	.....	33 to 47	1 96	2 43	58 37 to 68 10
Carlow, Cork, Tipperary ..	37 to 50 <sup>a</sup>	35	1 22	1 83	50 18
Leitrim, Mayo, Roscommon ..	37 to 50	.....	.....	1 46	38 93 to 48 67
Sligo... { Winter ..	22 to 25	.....	1 22	.....	.....
{ Spring ..	25 to 37	.....	2 95 <sup>a</sup>	.....	38 93 to 48 67

<sup>a</sup> Harvest-wages.

*Statement showing the rates of wages paid for mechanical and other labor in Ireland in the year 1873.*

Occupation.	Waterford.	Cork.	Londonderry.
<b>MECHANICS.</b>			
Blacksmiths.....	\$8 40 per week.....	\$5 84 per week.....	\$0 84 to \$1 32 per day.
Bricklayers, masons.....	6 72 per week.....	6 33 per week.....	84 to 1 36 per day.
Cabinet-makers.....	7 20 per week.....	.....	96 to 1 04 per day.
Carpenters.....	6 24 per week.....	5 84 per week.....	72 to 1 32 per day.
Coopers.....	5 76 per week.....	1 46 per day.....	72 to 1 08 per day.
Machinists.....	7 50 to \$9 60 per week.....	7 30 per week.....	1 30 to 1 80 per day.
Painters.....	6 00 per week.....	5 84 per week.....	1 08 to 1 56 per day.
Plasterers.....	6 72 per week.....	6 33 per week.....	96 to 1 44 per day.
Shoemakers.....	6 00 per week.....	1 46 per day.....	5 76 to 6 24 per week.
Stone-cutters.....	6 72 to \$7 20 per week.....	1 46 per day.....	96 to 1 44 per day.
Tailors.....	6 00 per week.....	6 09 to \$7 30 per week.....	5 88 to 6 36 per week.
Tanners.....	.....	.....	4 32 to 5 76 per week.
Tinsmiths.....	7 20 per week.....	.....	3 60 to 4 80 per week.
Wheelwrights.....	6 24 to \$6 72 per week.....	8 52 per week.....	4 32 to 5 76 per week.
<b>FARM LABORERS.</b>			
Experienced hands:			
In summer.....	72 per day.....	3 41 per week.....	36 to 40 per day.
In winter.....	60 per day.....	2 43 per week.....	36 to 40 per day.
Ordinary hands:			
In summer.....	60 per day.....	2 92 per week.....	32 to 36 per day.
In winter.....	48 per day.....	1 95 per week.....	32 to 36 per day.
Common laborers, at other than farm work.	48 per day.....	.....	36 to 72 per day.
Female servants.....	60 00 per annum.....	.....	40 00 to 60 00 per annum.
<b>MISCELLANEOUS.</b>			
Seamen.....	12 40 to \$15 per month.....	.....	.....
Laborers or unskilled workmen, 1874.....	.....	2 92 per week.....	.....
Apprentices or boys, 1874.....	.....	1 46 per week.....	.....
Foremen or overseers, 1874.....	.....	9 73 per week.....	.....

Mr. E. H. Derby, of Boston, who traveled in Ireland in 1872, gives the following memoranda in regard to wages at that time:

Londonderry—servant girls, 13s. per month; servant men, from £10 to £14 per year; masons, 4s. per day. Girls in shirt factories earned an average of 8s.; many at piecework earned from 6s. 4d. to £1 per week each.

Housemaids in Dublin get £10 per year. A washerwoman earns 1s. 6d. per day. Wages of farm laborers, with board, 10s. to 12s. per week. Extra help 2s. to 3s. each per day.

#### BELFAST.

Population in 1871, 174,413.

Belfast is the chief manufacturing and commercial town and the great depot of the linen trade of the north of Ireland. It is the center of the Irish linen manufacture,\* to the cultivation of which it is mainly indebted for its prosperity. There are also flour-mills and saw-mills, foundries, tanneries, breweries, and distilleries, a felt manufactory and vitriol-works, and being a maritime town it has extensive ship and rope yards. It presents an appearance of bustling activity not to be found elsewhere in Ireland.

\* Linen was woven in Ireland as early as the eleventh century, but the first mention of Irish linen on record occurs in the thirteenth century, it being stated that in 1272 it was used in Winchester.

## IRON-SHIP-BUILDING AND ENGINEERING WORKS.

Iron-ship-building is extensively carried on by Messrs. Harland & Wolff, the builders of the well-known steamships of the White Star Line. Facilities for this branch of industry, equal to those on the Clyde, are possessed at Belfast; indeed, the rates of wages are said to be somewhat lower. The following rates paid by the firm above mentioned and kindly furnished for this report, being given by the day, and not in such detail as the statements made by the firm of Messrs. J. Elder & Co., of Glasgow, are, therefore, not so valuable for purposes of comparison.

*Average wages per day (computed in United States gold) paid by Messrs. Harland & Wolff to hands employed in their iron-ship-building and engineering works in October, 1874.*

Occupation.	Wages.	Occupation.	Wages.
Platers, riveters, and calkers .....	\$1 13	Riggers .....	\$1 09
Holders-on .....	68	Smiths .....	1 06
Shipwrights .....	1 29	Hammermen .....	58
Joiners .....	1 10	Fitters and pattern-makers .....	1 15
Painters .....	1 17	Laborers .....	62
Sawyers .....	98		

## DUBLIN.

Population in 1871, 267,717.

Dublin City, the capital of Ireland, claims a high antiquity. In the early part of the ninth century it was taken by the Danes, and in 1169 by the English under Strongbon. The manufactures are limited to Irish poplins, stockings, cotton, and a few other fabrics. Iron casting, cabinet making, and manufactures of the minor articles of jewelry and apparel are thriving, but afford employment to but a small part of the population. The well-known Dublin porter is an important item in the trade of the city, the exports in 1871 reaching 281,301 hogsheads.

Mr. Wilson King, United States consul at Dublin, under date of November 24, 1873, writes as follows :

In all, or nearly all, branches of labor wages are greatly higher than they formerly were, and I do not think that the cost of living has advanced proportionately. Bread is slightly dearer, but meat, sugar, and tea, and even oatmeal, can be had for nearly the same as before the advance in wages.

## AGRICULTURAL WAGES IN ENGLAND AND WALES.

*Rates of agricultural wages and amount of weekly earnings for men, women, and children, in each county of England and Wales, in the quarters ended Michaelmas and Christmas, 1869, and Lady Day and Midsummer, 1870.*

[Compiled from parliamentary papers, No. 371, of session 1870, and No. 181, of session 1871.]

Districts and counties.	Quarters ended—	Men.		Women.	Children under 16.
		Weekly wages without lodging and food.	Weekly earnings by task-work.	Weekly wages without lodging and food.	Weekly wages without lodging and food.
SOUTHEASTERN.					
Surrey.....	Michaelmas, 1869*	\$3 38	\$3 63 to \$4 84	\$1 21 to \$1 45	\$0 96 to \$1 03
	Christmas, 1869	3 14	3 63	1 21 to 1 45	62 to 1 08
	Lady Day, 1870.	\$3 14 to 3 38	.....	1 33 to 1 45	1 08 to 1 21
Kent.....	Michaelmas, 1869*	3 38 to 3 63	4 35 to 6 05	1 45 to 2 17	72 to 1 49
	Christmas, 1869	3 14 to 3 63	3 63 to 4 35	1 45	72 to 1 93
	Lady Day, 1870.	3 14 to 3 63	3 38 to 4 11	1 45 to 1 61	72 to 1 21
Sussex.....	Midsummer, 1870	3 38	4 11	1 45	96 to 1 21
	Michaelmas, 1869*	2 66 to 3 26†	3 63 to 4 84	1 45	48 to 1 49
	Christmas, 1869	2 66 to 2 90†	3 14 to 3 63	1 21	72 to 1 08
Southampton.....	Lady Day, 1870.	2 66 to 3 14†	3 02 to 4 35	1 21 to 1 45	72 to 1 45
	Midsummer, 1870	2 66 to 2 90	3 14 to 3 63	1 21 to 1 45	72 to 96
	Michaelmas, 1869*	2 66	4 35 to 4 84	1 21	96 to 1 21
Berkshire.....	Christmas, 1869	2 66	2 90 to 3 26	72 to 96	1 21
	Lady Day, 1870.	2 42 to 2 66	2 90 to 3 63	72 to 1 21	84 to 1 33
	Midsummer, 1870	2 42 to 2 90	2 90 to 3 63	96 to 1 21	72 to 1 21
Berkshire.....	Michaelmas, 1869*	2 66 to 3 14	3 63 to 4 84	1 21 to 1 45	1 21 to 1 69
	Christmas, 1869	1 93 to 2 42	2 42 to 3 14	96 to 1 08	84 to 1 69
	Lady Day, 1870.	2 42	2 66 to 3 14	96 to 1 08	84 to 96
Midsummer, 1870	2 17 to 2 42	2 90 to 3 63	96 to 1 21	84 to 1 21	
SOUTH MIDLAND.					
Herts.....	Michaelmas, 1869*	2 72 to 4 34	5 47	1 08	96 to 2 69
	Christmas, 1869	2 54 to 3 14	3 26	1 08	96
	Lady Day, 1870.	2 60 to 3 14	3 26	96	96 to 1 08
North'mp'tenshire	Midsummer, 1870	2 78 to 3 14	3 63	96	96
	Michaelmas, 1869*	2 90 to 3 14	3 63 to 6 05	96 to 1 45	84 to 1 45
	Christmas, 1869	2 42 to 3 26	3 38 to 4 11	72 to 1 45	48 to 1 08
Huntingdon.....	Lady Day, 1870.	2 66 to 2 90	3 38 to 3 63	96 to 1 45	84 to 1 08
	Midsummer, 1870	2 66 to 2 90	3 14 to 5 08	96 to 1 45	60 to 84
	Michaelmas, 1869*	3 87	4 35	1 45	1 45
Bedfordshire.....	Christmas, 1869	2 66	3 38	1 21	72 to 96
	Lady Day, 1870.	2 66	2 90	1 21	72 to 1 21
	Midsummer, 1870	2 42	2 90	1 21	96
Bodfordshire.....	Michaelmas, 1869*	2 66 to 3 63	3 63 to 5 32	1 21 to 1 45	60 to 1 45
	Christmas, 1869	2 42 to 3 38	2 66 to 2 90	.....	60 to 1 21
	Lady Day, 1870.	2 42 to 3 38	2 66 to 2 90	.....	60 to 1 21
Cambridge.....	Midsummer, 1870*	2 42 to 3 38	.....	1 21 to 1 45	60 to 1 45
	Michaelmas, 1869*	2 42 to 2 90	3 03 to 3 87	72 to 1 21	48 to 84
	EASTERN.				
Essex.....	Michaelmas, 1869*	2 42 to 3 63†	2 90 to 7 26	84 to 1 21	48 to 1 45
	Christmas, 1869*	2 42 to 3 02†	.....	84 to 72	48 to 1 45
	Lady Day, 1870.	2 42 to 2 90*	2 42 to 3 87	84 to 1 45	48 to 1 45
Suffolk.....	Midsummer, 1870	2 42 to 2 90†	2 42 to 3 38	84 to 1 21	48 to 1 45
	Michaelmas, 1869*	2 17 to 2 90	3 38 to 7 26	96 to 1 08	48 to 1 69
	Christmas, 1869	2 42 to 2 90	2 90	96 to 1 08	48 to 96
Norfolk.....	Lady Day, 1870.	2 42 to 2 90	2 90 to 3 38	96	48 to 1 45
	Midsummer, 1870	2 42 to 2 90	.....	96	48 to 1 45
	Michaelmas, 1869*	2 42 to 3 14	3 14 to 4 35	72 to 1 21	24 to 1 21
Norfolk.....	Christmas, 1869	2 17 to 3 14	2 90 to 3 63	72 to 1 21	48 to 1 21
	Lady Day, 1870.	2 42 to 3 14	2 90	96 to 1 08	48 to 1 21
	Midsummer, 1870*	2 42 to 3 14	2 90 to 3 87	72 to 1 21	48 to 1 21
SOUTHWESTERN.					
Wilt.....	Michaelmas, 1869*	2 42 to 2 90	3 87 to 4 35	96 to 1 45	48 to 1 45
	Christmas, 1869	2 29 to 2 66	2 90 to 3 14	84 to 1 21	48 to 1 45
	Lady Day, 1870.	2 29 to 2 66	2 90 to 3 63	84 to 1 45	48 to 1 45
Dorset.....	Midsummer, 1870*	2 42 to 2 90	3 14 to 3 38	84 to 1 21	48 to 1 45
	Michaelmas, 1869*	2 17 to 2 42†	3 63 to 4 35	96	48 to 1 08
	Christmas, 1869	2 05 to 2 17†	2 90 to 3 14	72 to 96	48 to 96
Dorset.....	Lady Day, 1870.	2 05 to 2 90†	2 17 to 3 26	84 to 96	48 to 1 45
	Midsummer, 1870*	2 17 to 2 63†	2 42 to 4 35	72 to 1 45	72 to 1 69

\* With beer at hay-time and harvest.

† Usually with beer at harvest-time.

— ; With food.

*Rates of agricultural wages and amount of weekly earnings, &c.—Continued.*

Districts and counties.	Quarters ended—	Men.		Women.		Children under 16.	
		Weekly wages without lodging and food.	Weekly earnings by task-work.	Weekly wages without lodging and food.	Weekly wages without lodging and food.	Weekly wages without lodging and food.	Weekly wages without lodging and food.
Devonshire .....	Michaelmas, 1869* ..	\$1 93 to \$2 90†	\$2 17 to \$3 63	\$96 to \$1 08	\$36 to \$1 21		
	Christmas, 1869† ..	2 17 to 2 66†	2 54 to 3 63	96 to 1 08	72 to 1 21		
	Lady Day, 1870* ..	2 05 to 2 90†	2 42 to 3 63	96 to 1 08	48 to 1 21		
	Midsummer, 1870† ..	2 17 to 2 90†	2 42 to 3 38	96 to 1 08	72 to 1 21		
Cornwall .....	Michaelmas, 1869* ..	2 66	3 63	1 08	1 08		
	Christmas, 1869 ..	2 66	3 38	1 08	72		
	Lady Day, 1870 ..	2 66	3 63	96	72		
	Midsummer, 1870 ..	2 66	3 63	1 08	96		
Somerset .....	Michaelmas, 1869* ..	2 42 to 2 90	3 38 to 4 84	96 to 1 45	96 to 1 93		
	Christmas, 1869† ..	2 42 to 2 54	2 90	1 21 to 1 45	1 45		
	Lady Day, 1870* ..	2 42 to 2 66	2 42 to 3 14	1 21	84 to 96		
	Midsummer, 1870† ..	2 42	2 90	1 21	84 to 1 45		
WEST MIDLAND.							
Gloucestershire ..	Michaelmas, 1869* ..	2 42 to 3 14†	3 38 to 5 08	1 21 to 1 57	96 to 1 21		
	Christmas, 1869† ..	2 42 to 2 90†	2 90 to 3 63	96 to 1 21	72 to 1 21		
	Lady Day, 1870* ..	2 17 to 2 90†	2 90 to 3 63	96 to 1 21	84 to 1 21		
	Midsummer, 1870† ..	2 17 to 2 90†	2 90 to 4 84	96 to 1 21	84 to 1 21		
Herefordshire ...	Michaelmas, 1869† ..	2 42 to 2 54	3 14 to 4 84	96 to 1 08	48 to 1 45		
	Christmas, 1869† ..	2 17 to 2 42	2 66	96 to 1 21	60 to 1 21		
	Lady Day, 1870* ..	2 17 to 2 66	2 90	96 to 1 08	72 to 1 45		
	Midsummer, 1870† ..	2 17 to 2 90	2 66 to 3 63	96 to 1 21	72 to 1 45		
Shropshire .....	Michaelmas, 1869* ..	2 42 to 2 90†	3 63 to 3 87	1 08	1 21		
	Christmas, 1869* ..	2 42 to 3 14†	.....	84 to 1 08	.....		
	Lady Day, 1870* ..	2 42 to 3 14	.....	84 to 1 08	.....		
	Midsummer, 1870* ..	2 66 to 3 14	5 08	1 08	1 45 to 1 83		
Stafford .....	Michaelmas, 1869* ..	3 14	3 87	1 21	84		
	Christmas, 1869* ..	3 14	.....	1 21	84		
	Lady Day, 1870* ..	3 14	.....	1 21	84		
	Midsummer, 1870* ..	3 14	3 87	1 21	84		
Worcestershire ..	Michaelmas, 1869† ..	2 66 to 3 67	2 90 to 6 05	72 to 1 45	48 to 1 45		
	Christmas, 1869† ..	2 42 to 3 14	2 90 to 3 87	72 to 1 21	48 to 56		
	Lady Day, 1870* ..	2 42 to 2 90	2 42 to 3 87	96 to 1 21	48 to 1 45		
	Midsummer, 1870† ..	2 42 to 2 90	2 42 to 3 87	96 to 1 21	48 to 1 45		
Warwickshire ....	Michaelmas, 1869* ..	2 66 to 3 87	3 75 to 4 84	24 to 72	72 to 96		
	Christmas, 1869 ..	2 54 to 3 14	3 14	84 to 1 21	72		
	Lady Day, 1870 ..	2 66 to 3 14	3 63	84 to 96	72 to 1 45		
	Midsummer, 1870 ..	2 66 to 3 63	.....	84 to 1 43	84 to 96		
NORTH MIDLAND.							
Leicestershire ....	Michaelmas, 1869 ..	3 14 to 3 63	.....	96 to 1 45	36 to 72		
	Christmas, 1869 ..	2 90 to 3 14	3 14	84 to 96	72 to 84		
	Lady Day, 1870 ..	2 90 to 3 38	3 63 to 3 75	.....	84 to 1 45		
	Midsummer, 1870 ..	3 14	3 63 to 4 84	96 to 1 21	72 to 96		
Rutland .....	Michaelmas, 1869* ..	3 02	4 84	1 45	84 to 1 45		
	Christmas, 1869 ..	2 90	.....	.....	72		
	Lady Day, 1870 ..	2 90	.....	.....	72 to 1 45		
	Midsummer, 1870 ..	3 14	.....	.....	72 to 1 45		
Lincoln .....	Michaelmas, 1869* ..	3 38	5 56	72	96		
	Christmas, 1869 ..	3 26 to 3 63	.....	72	72 to 96		
	Lady Day, 1870 ..	3 26	4 53	.....	72 to 1 45		
	Midsummer, 1870 ..	3 26 to 3 63	4 35 to 7 26	1 45	72 to 1 93		
Nottinghamshire ..	Michaelmas, 1869* ..	3 26	3 75 to 7 26	1 45	96		
	Christmas, 1869 ..	2 90 to 3 26	4 72	1 45	1 08		
	Lady Day, 1870 ..	2 90 to 3 38	3 50 to 4 36	1 21 to 1 81	84 to 1 21		
	Midsummer, 1870 ..	2 90 to 3 63	3 63 to 4 36	1 08 to 1 45	96 to 1 08		
Derbyshire .....	Michaelmas, 1869 ..	2 90 to 3 63	.....	2 42 to 2 90	.....		
	Christmas, 1869 ..	3 38	3 63	1 45	.....		
	Lady Day, 1870 ..	3 38	3 87	96 to 1 45	48 to 1 45		
	.....	.....	.....	.....	.....		
NORTHWESTERN.							
Cheshire .....	Michaelmas, 1869† ..	2 90 to 3 63	4 84	1 45 to 2 17	96		
	Christmas, 1869† ..	2 90 to 3 63	3 63	1 45 to 2 17	48 to 72		
	Lady Day, 1870† ..	2 90 to 3 63	.....	1 45 to 2 17	.....		
	Midsummer, 1870† ..	2 90 to 3 63	.....	1 45 to 2 17	1 08 to 1 45		
Lancashire .....	Michaelmas, 1869 ..	3 63	4 35 to 5 80	1 81 to 2 17	1 21 to 1 81		
	Christmas, 1869 ..	2 90 to 3 63	.....	1 45 to 2 42	.....		
	Lady Day, 1870 ..	3 63	3 87 to 4 84	1 81 to 2 17	1 45		
	Midsummer, 1870 ..	3 63 to 4 35	3 63 to 4 84	1 81 to 2 17	1 45 to 2 17		

\* With beer at hay-time and harvest.

† Usually with beer at harvest-time.

‡ With food.

|| With food and cider at harvest-time, and a cottage, &c.

*Rates of agricultural wages and amount of weekly earnings, &c.—Continued.*

Districts and counties.	Quarters ended—	Men.		Women.	Children under 16.
		Weekly wages without lodg- ing and food.	Weekly earn- ings by task- work.	Weekly wages without lodg- ing and food.	Weekly wages without lodg- ing and food.
YORKSHIRE.					
West Riding.....	Michaelmas, 1869†	\$3 38 to \$5 80		\$1 45 to \$3 38	\$1 21 to \$3 38
	Christmas, 1869 ...	3 26 to 3 99	\$3 63 to \$4 35	1 45 to 1 69	96 to 1 93
	Lady Day, 1870....	3 26 to 4 11		1 45 to 1 69	72 to 1 45
	Midsummer, 1870 ..	3 63 to 4 35		1 21 to 1 45	96 to 1 45
North Riding....	Michaelmas, 1869 ..	3 63 to 4 78		1 45 to 2 17	72 to 1 45
	Christmas 1869 ....	1 90 to 3 87		1 21 to 1 45	78
	Lady Day 1870.....	2 90 to 3 63		60 to 1 45	60 to 96
	Midsummer, 1870 ..	3 63 to 4 35	3 75	1 21 to 1 45	84 to 96
NORTHERN.					
Durham .....	Michaelmas, 1869§	3 63 to 4 35†	4 35	1 21 to 1 81	84 to 96
	Christmas, 1869 ...	3 63 to 3 87†		96 to 1 45	
	Lady Day, 1870....	3 63 to 4 11†		1 08 to 1 45	
	Midsummer, 1870 ..	3 63 to 4 11†		1 45	84 to 1 21
Northumberland.	Michaelmas, 1869 ..	3 63 to 5 80		96 to 4 35	96 to 2 17
	Christmas, 1869 ....	3 38 to 3 87		1 21 to 1 81	60 to 1 45
	Lady Day, 1870....	3 63 to 4 35		1 21 to 1 81	72 to 1 45
	Midsummer, 1870 ..	3 63 to 3 87		1 45	72 to 1 45
Cumberland .....	Michaelmas, 1869 ..	3 63		1 81 to 2 17	1 08 to 1 45
	Christmas, 1869 ....	2 42 to 3 63		1 45 to 1 69	72
	Lady Day, 1870....	3 63		1 45 to 1 81	72 to 1 08
	Midsummer, 1870 ..	3 63 to 4 35		1 45 to 1 81	72 to 1 45
Westmoreland...	Michaelmas, 1869§	3 50 to 4 35	3 63 to 5 08	48 to 1 57	30 to 1 29
	Christmas, 1869 ....	3 63 to 3 87			
	Lady Day, 1870....	3 38 to 4 11		1 45	1 21
	Midsummer, 1870 ..	3 99 to 4 35		2 17	54 to 1 21
WELSH.					
Monmouth .....	Michaelmas, 1869 ..	2 42 to 3 63	3 63 to 5 32	1 45	36
	Christmas, 1869 ...	2 42 to 3 63	3 63 to 4 35	1 21	48
	Lady Day, 1870....	2 66 to 4 00	3 63 to 4 35	1 45	
	Midsummer, 1870 ..	2 66 to 3 63	3 63 to 5 32	1 21 to 1 45	
WALES.					
Unions.					
Merthyr Tydfil..	Michaelmas, 1869†	3 02 to 4 35	3 87	1 21 to 1 45	
	Christmas, 1869 ...	2 90 to 4 11		96 to 1 21	72
	Lady Day, 1870....	3 63		96 to 1 21	
	Midsummer, 1870 ..	3 63		96 to 1 45	48 to 72
Bridgend and Cowbridge.	Michaelmas, 1869 ..	3 14 to 3 63	4 35 to 5 08	1 45	72 to 1 69
	Christmas, 1869 ....	3 14 to 3 63		1 45	72 to 1 69
	Lady Day, 1870....	3 14 to 3 63	4 35 to 5 08	1 45	72 to 1 69
	Midsummer, 1870 ..	3 14 to 3 63	4 35 to 5 08	1 45	72 to 1 69
Gower .....	Michaelmas, 1869 ..	2 90*	3 63*	1 45	1 69
	Christmas, 1869 ....	2 90	3 63	1 45	1 45
	Lady Day, 1870....	2 90		1 45	
	Midsummer, 1870 ..	2 90		1 45	
Llanelly .....	Michaelmas, 1869†	3 14 to 3 63		1 21 to 1 45	72 to 96
	Christmas, 1869 ...	3 14 to 3 63		1 21 to 1 45	72 to 96
	Lady Day, 1870....	3 26		1 45	1 21
	Midsummer, 1870 ..	3 26		1 45	1 21
Llandilo-fawr ...	Michaelmas, 1869 ..	2 42 to 2 90	4 84 to 5 80	1 21 to 1 45	72 to 96
	Christmas, 1869 ....	2 42 to 2 90	2 90 to 3 38	1 21 to 1 45	
	Lady Day, 1870....	2 42 to 3 38		96 to 1 21	72 to 96
	Midsummer, 1870 ..	2 90 to 3 38		96 to 1 21	72 to 96
Carmarthen.....	Michaelmas, 1869 ..	2 90	3 63	1 21	72
	Christmas, 1869 ....	2 17	2 90		
	Lady Day, 1870....	2 17	2 90	92	92
	Midsummer, 1870 ..	2 17	2 90	92	92
Haverfordwist...	Michaelmas, 1869 ..	2 42 to 2 90		1 45	96
	Christmas, 1869 ....	1 21 to 1 45†		96	
	Lady Day, 1870....	1 21 to 1 45†		96	
	Midsummer, 1870 ..	1 21 to 1 45†		96	
Cardigan .....	Michaelmas, 1869§	2 17	2 42 to 2 90	72 to 1 45	72 to 1 45
	Christmas, 1869 ....	1 93 to 2 17	1 93 to 2 42	96	
	Lady Day, 1870....	1 93 to 2 17	1 93 to 2 42	96	
	Midsummer, 1870§	2 17 to 2 66		96 to 1 45	96

\* With beer at hay-time and harvest.

† Usually with beer at harvest-time.

‡ With food.

§ With food and cider at harvest-time, and a cottage, &c.

¶ Usually with food and beer at harvest-time.

*Rates of agricultural wages and amount of weekly earnings, &c.—Continued.*

Districts and counties.	Quarters ended—	Men.		Women.	Children under 16.
		Weekly wages without lodging and food.	Weekly earnings by task-work.	Weekly wages without lodging and food.	Weekly wages without lodging and food.
Crickhowell .....	Michaelmas, 1869*	\$2 90	\$3 63	\$1 45	\$1 45
	Christmas, 1869	2 90	3 63	1 21	96
	Lady Day, 1870	2 90	.....	1 21	96
	Midsummer, 1870	\$2 90 to 3 14	.....	1 21 to 1 45	.....
Knighton .....	Michaelmas, 1869	2 42*	.....	1 21	96
	Christmas, 1869	2 17*	2 42	96	50
	Lady Day, 1870	2 42*	.....	1 21	1 21
	Midsummer, 1870	2 42*	.....	1 21	1 21
Conway .....	Michaelmas, 1869	1 93†	.....	1 45	1 45
	Christmas, 1869	3 38	.....	1 45	72
	Lady Day, 1870	1 93†	.....	1 45	1 45
	Midsummer, 1870	2 17†	3 63	1 45	124

\* With food and cider at harvest-time, and a cottage, &c.

† With food.

*Weekly earnings of women and children at task-work.*

WOMEN.

Counties.	Quarter ended—			
	Michaelmas.	Christmas.	Lady Day.	Midsummer.
Kent .....	.....	\$2 17	\$1 45 to \$2 17	\$1 93 to \$2 17
Sussex .....	\$2 90	.....	.....	.....
Southampton .....	\$1 93 to 2 42	96	96	.....
Berkshire .....	1 45 to 1 69	1 45	1 45	96 to 1 45
Northampton .....	1 45	.....	1 08	.....
Norfolk .....	72 to 1 21	.....	.....	.....
Wiltshire .....	1 93 to 2 42	.....	.....	.....
Dorset .....	96 to 1 45	.....	.....	1 08 to 2 90
Devonshire .....	.....	.....	.....	96 to 1 21
Cornwall .....	.....	.....	.....	1 45
Gloucestershire .....	2 05 to 2 17	.....	.....	.....
Hertfordshire .....	1 45 to 2 17	.....	1 21	.....
Shropshire .....	1 45	96 to 1 25	.....	1 81
Stafford .....	1 45	.....	.....	1 45
Worcestershire .....	72 to 2 90	1 21 to 1 93	96 to 1 93	1 21 to 1 93
Warwickshire .....	.....	.....	1 21	.....
Leicestershire .....	.....	96	.....	.....
Lincoln .....	1 39	.....	.....	.....
Nottinghamshire .....	2 17	.....	.....	2 17
North Riding, (Yorkshire) .....	2 17	.....	.....	.....
Durham .....	1 45	.....	.....	.....
Monmouth .....	1 81	.....	1 69	.....
Gower, (Wales) .....	.....	1 93	.....	.....
Crickhowell .....	.....	1 21	.....	.....

CHILDREN UNDER 16 YEARS.

Counties.	Michaelmas.	Christmas.	Lady Day.	Midsummer.
Kent .....	.....	.....	.....	\$0 96
Sussex .....	\$1 45 to \$2 90	.....	.....	.....
Southampton .....	1 93	.....	.....	.....
Berkshire .....	1 69	.....	.....	1 21
Herts .....	1 81	.....	.....	.....
Northamptonshire .....	.....	.....	\$1 08	.....
Bedfordshire .....	1 21 to 1 45	.....	.....	.....
Norfolk .....	24 to 1 21	.....	.....	.....
Dorset .....	1 21	.....	.....	72 to 96
Devonshire .....	.....	.....	.....	1 45
Cornwall .....	.....	.....	.....	.....
Gloucestershire .....	1 45	.....	.....	.....
Shropshire .....	1 81	.....	.....	.....
Worcestershire .....	72 to 1 69	.....	.....	.....
Leicestershire .....	.....	\$0 96	.....	.....
Lincoln .....	1 45	.....	.....	.....
Nottinghamshire .....	1 21	.....	.....	96 to 1 21
Lancashire .....	.....	.....	2 05	1 69



A return, similar to the foregoing, was made to the House of Commons in July, 1873, giving the average rate of weekly earnings of agricultural laborers in England and Wales during the quarters ended Michaelmas and Christmas, 1872, so far as the same could be readily obtained.

† The following information, condensed from this return, exhibits a gratifying improvement in the earnings and the condition of farm-laborers over those of 1869-'70:

At Epsom the weekly wages to men were 14s. a week; and women, 6s.; children under sixteen years of age, 5s.; and the same stated as weekly earnings by task-work. In the eastern district the men earned 16s. by the week and 20s. by task-work. In Kent (at Faversham) the men earned 20s. as weekly wages and 26s. at task-work. Only those who sow and reap are engaged by task. Beer, ale, and cider are given in some places; in others no refreshment. In one place in Wales the weekly wages to men was from 15s. to 22s., and with "task money" stated at 18s. 6d.; and at the same place breakfast was given, as well as other meals, with about four pints of beer a day. It is mentioned that the supply is afforded during the hay and corn harvests, and it is added, "They are not stinted in food." At Northampton the weekly wages was 14s. Of course, the amount is different in the various counties. In Dorsetshire the wages to the men were from 9s. to 12s. per week. Shepherds, 20s. in the lambing season.

On the (Queen's) Osborne farms laborers formerly received but 14s. per week, from which was deducted 2s. for the rent of the cottage with which each is provided. A garden is attached to each cottage. A quantity of thin beer is given to each man.

#### FARM-WAGES IN 1874.

There has been an advance in the price of farm-labor and a reduction of the hours of labor since 1870.

In an article on the condition of the working-classes of England, which appears on subsequent pages, Mr. Stanley James says:

The average rates of farm-wages throughout England have since risen, and the hours of labor have been reduced. In the northern counties, 18s. a week is now paid for farm-labor; in the midland districts, 16s.; and in the southern districts, from 12s. to 14s. There are still parts of England, however, in which men are paid less than the latter sum.

From the London Times and other undoubted authorities the following information in regard to the prices of farm-labor in Great Britain is obtained:

In Aberdeenshire, a plowman receives from £28 (\$135.52) to £30 (\$145.20) per annum, with food and lodging.

In Mid Lothian, agricultural wages have doubled since 1840.

In Northumberland, 21s. (\$5.08) a week and 3s. (72 cents) extra in harvest, house and garden free, and 80 stone of potatoes within the year.

In North Lancashire, 20s. (\$4.84) and 21s. (\$5.08) weekly to plowmen.

Yorkshire, 20s. (\$4.84) to 23s., (\$5.56.)

Lincolnshire, 18s. (\$4.35) per week, winter and summer.

Norfolk, 2s. 6d. (60 cents) per day, ordinary laborers.

Agricultural laborers' wages have risen from 50 to 100 per cent. all over the country within the last quarter of a century.—*Times*, April 17, 1874.

\* *New Market*, (April, 1874).—Weekly wages paid by an employer under the Duke of Rutland, as follows: Laborer, 17s. 2d. to 18s. 9d., (\$4.15 to \$4.53); horsekeeper, 18s. 6d. to 20s. 5d., (\$4.47 to \$4.94); yardman, 21s. 4d., (\$5.16,) including harvest-work and piece-work.

\* *Thetford*.—Wages paid upon the Knettishall farm to a man sixty-eight years old, who is the lowest paid among the able-bodied laborers employed. Forty-seven weeks at 14s., (\$3.38) \$158.86; piecework over day wages, £2 15s., 8d., (\$13.47;) five weeks harvest wages, £8 19s., \$13.31; making a total of \$215.64.—*Times* June 8, 1874.

Mr. Walter Williams, under date of October 25, 1874, writes: "Farm laborers earn from 2s. 6d. to 3s. 6d. per day, according to capacity, with perquisites."

## FARM WAGES IN 1875.

The following extracts, from the *Chamber of Agriculture Journal*, show the wages of farm laborers in different counties of England at the most recent dates, and indicate a marked advance on the rates of 1870:

*Berkshire, (Maidenhead,) January 28.*—Lowest price for day-men, 13s. or 14s. per week. Working hours per day, 9½.

*Hampstead Norreys, January 29.*—Wages, 12s. and upwards; 7 o'clock to 5.30, next month to 6 o'clock.

*Essex, January 14.*—Wages, from 13s. to 16s. per week by day. Hours, from 7 to 5.

*Suffolk, January 19.*—Wages, 13s. and 14s. a week; 8½ hours a day.

*Somersetshire, (Marloek,) January 21.*—Wages 11s., and three gallons of cider per week.

*Buckinghamshire, February 17.*—Wages, 14s. per week for ordinary laborers; carters and stockmen, 16s. for 9½ hours' work.

*Cardiganshire, February 19.*—Laborers abundant, on account of the strike in the iron and coal works. Wages, where food is not given, average 10s. to 11s.

*Herefordshire, February 19.*—General wages, 12s. per week, with cider; wagoners and stockmen, from 2s. to 4s. per week more, with cider and harvest money extra.

*North Essex and South Suffolk, February 18.*—Wages, day-work, 2s. per day from 6 a. m. to 6 p. m., two hours for meals. Contract work up to 2s. 6d. per day.

*Bucks, North, February 26.*—Wages, 13s. to 16s. a week.

*Essex, February 25.*—Wages, 14s. weekly, from 6.30 to 5 o'clock.

*Herefordshire, (near Madley,) February 25.*—Wages vary from 12s. to 15s. per week; except in the winter, they work from 6 a. m. to 6 p. m.

*Kent, February 25.*—Wages, 16s. a week and upward.

*Leicestershire, (near Grantham,) February 24.*—Ordinary wages, 2s. 6d. a day; no scarcity of men. Hours, from 6.30 a. m. to 5.30 p. m.; in fact, the men leave home at 6 a. m., and reach home again at 6 p. m.

*Monmouthshire, (Llanarth,) February 25.*—Wages, 12s. to 15s. per week, with perquisites. Hours, 10½.

*Yorkshire, North Riding Dales, (Leatholme, Yarm,) February 23.*—Wages of farm servants, laborers, and mechanics are high, much out of proportion as compared with the price of wheat.

*Warwickshire.*—Wages, 15s. per week. Hours, about from 7 till 5.

*Chehire, (Tarporey,) March 3.*—Wages mostly vary, according to locality, from 13s. to 17s. per week, and laborers are scarce. Hours of labor from 7 in the morning until 6 in the evening, with 30 minutes for breakfast, and 1 hour for dinner.

*Berkshire, March 11.*—Wages, 12s. and 13s.; carters, &c., 1s. a week more. Hours of labor, from 7 a. m. till 5 p. m., 1 hour for dinner; in many places from 6 a. m. till 6 p. m., with half an hour for breakfast, and 1 hour for dinner.

*Dorsetshire, March 11.*—Wages, nominally, about 12s. a week, with perquisites; 15s. without. Good men earn from 2s. to 5s. a week extra.

*Gloucestershire, March 11.*—Wages from 11s. to 14s. per week. Hours of labor, from 7 a. m. to 5 p. m.

*Norfolk, (West,) March 10.*—Wages are nominally 13s. per week, but good men have more.

*Yorkshire, (West Riding,) March 20.*—Wages from 18s. to 24s. per week. Ten hours per day.

*Buckinghamshire, (South,) March 18.*—Wages, 14s. per week; many men earn more by piecework. Hours, from 6 to 5.

*Devon, March 18.*—Wages, 12s. per week, with cider.

*Wiltshire, (Tisbury,) March 18.*—General wages, 12s. per week; but in many parishes it is 11s. for 10 hours work; women, 10d. per day.

## SALARIES OF CLERKS IN BANKS, INSURANCE COMPANIES, ETC.

The following information, condensed from the *London Economist* of May 1, 1875, in regard to the salaries of clerks in banking and other institutions, although forming no part of the object of this report, will prove of interest to some readers:

As regards the *initial* pay, the usual age of entry in banks and insurance companies is from seventeen or eighteen to twenty, and the salary from £70 to £80. The usual pay of a junior clerk between eighteen and twenty may be roughly put at about £80.

The Bank of England, with an establishment of eight hundred clerks, returns the age of entry for ordinary clerks as eighteen to twenty-five, and the initial pay "about £70 per annum." The London and Westminster Bank, with 443 clerks, returns the age of entry at from eighteen to twenty-one, and the initial pay £80 per annum, except

in the case of the juniors, who enter between sixteen and seventeen at £50 per annum. In Glyn's, with 200 clerks, the initial pay is £75 per annum, and the age of entry between seventeen and eighteen. Seventy-five pounds for a lad of eighteen is by no means a low salary. Upon that point I can speak with considerable confidence. Taking the general run of clerical employment in the city, there are not many places where a lad of eighteen would get £75 a year.

As regards maximum pay, about £350 to £400 a year in banks, and, at the most, £300 a year in other establishments, are the maximum amounts to which ordinary clerks, if they are possessed of merit—there being hardly any promotion except by merit—may look forward to. Thus, in the Bank of England, the secretary stated that every clerk would rise to a "maximum" of £300 about forty-one to forty-four years of age.

In the London and Westminster Bank, and in Glyn's, the maximum in both cases is stated to be £400 for an average clerk.

#### RELATIVE AMOUNT OF WORK PERFORMED.

In estimating the actual cost of labor in the United Kingdom, from the figures presented on the preceding pages, regard has only been had to the number of hours of labor which the work-people have exchanged for the sums named. The computation is made upon the supposition that each man, at a given occupation, will perform a definite amount of work per hour, whether he labor eight, nine, or ten hours per day; in other words, that men who have been working ten hours per day will perform one tenth less if the time is reduced to nine hours, and one-fifth less if reduced to eight hours per day; which supposition may or may not be correct.

If it be required to ascertain the advance in the cost occasioned by a reduction of the hours of labor, this pro rata mode of computation will furnish the result approximately correct. But when, in determining the results of this investigation, it becomes necessary to compare the cost of labor in Great Britain with that in the United States, other data will be required in addition to those which have already been under consideration. The question is, What amount of labor is exchanged for a given quantity of coin, or of food, clothing, and shelter? This leads to the further inquiry, Does a workman in the United Kingdom accomplish as much work, in the same space of time, as one in a similar employment in the United States? This branch of the investigation engaged the attention of the author before and during his visit to the manufacturing towns of Great Britain, and he endeavored to gather such facts as would enable him to determine this question. Through observation and inquiry the conclusion was reached that, in most industrial pursuits, a workman in England does not perform so much work in, say, nine hours as another of equal knowledge and skill in the same branch in the United States. The reasons assigned for this were various, some of which are here presented.

Mr. Sellick, then United States consul at Bradford, is of opinion that work-people will not perform as much work in a week as similar workmen in the United States. The English work-people, he stated, lack intelligence, waste time, and by their intemperate habits injure their health, and consequently lessen their ability to labor.

The same reply, substantially, was made by the consul at Sheffield, and by others elsewhere, each possessing such an acquaintance with the subject as enabled him to express an intelligent opinion.

A Mr. Dodge, formerly of Cohoes, N. Y., a manufacturer of files near Manchester, having employed workmen at the same labor in both countries, and therefore fully qualified to form an intelligent opinion, stated, in reply to a question, that English workmen perform less work in a given time than Americans in similar employment. He gave as a reason, that it was owing to the want of "adaptability" of the former

to different kinds of work; that it was difficult to get them out of "old ruts," or to train them to work more rapidly than they had been accustomed to.

It is evident that the intemperate habits of the men, and the loss of time consequent thereon, prevent them from performing a full week's work. True, while at work, especially during the latter part of the week, the men work as rapidly as those in the United States; but in the earlier part of the week this is not the case with men who drink to excess. Even if men of such habits do not observe the festal day of their patron, Saint-Monday, they are unable to perform a fair day's work so soon after the dissipation of Saturday night and Sunday. This is especially true of the men in Sheffield, as will appear in subsequent pages under the caption, "Condition of the laboring classes."

The fact will not, perhaps, be disputed, that in most branches of manufacture, especially at machine or engineering work, and in the fabrication of hardware, cutlery, and other manufactures of iron and steel, the workmen perform less work per week, on an average, than an equal number in the United States.

The next inquiry is, What percentage of reduction should be made in the computation? From observation and inquiry the author is led to the conclusion that it amounts to ten per cent.; in other words, that, on an average, nine hundred men in the United States, employed at the branches indicated, as well as at many others, will accomplish as much efficient work per week as one thousand in England. If, therefore, the hours of labor in England were as formerly, fifty-nine per week, and in the United States fifty-four, the amount of work accomplished by a given number of men in the respective countries would be about the same.

In cotton and in other textile factories, and in some other branches of industry, the difference between the amount of labor performed in the two countries is not so great. A fair average of the whole industrial population of the two countries would, it is believed, indicate, in favor of the work-people of the United States, a difference of but eight, possibly of but six, per cent. in the amount of work performed.

In this connection it may be stated that, after the rise of wages in England in the year 1872, it was ascertained that the men in many branches of industry performed less work than when the rates were lower. An illustration of this fact is given by a correspondent of the *Leeds Mercury*, who presents an interesting comparison of the work done by colliers in 1864 and 1873:

In 1864 the average product of our coal-mines gave for each person employed 327½ tons, which for 313 working-days, is equal to 21½ cwt. for each person per day.

In 1868 the average product gives for each person 317 tons, which, for 313 working days, is equal to 20 cwt. for each person per day; and in 1873 the average product gives for each person only 271 tons, which, for 313 days, is equal to 17½ cwt. for each person per day. It will thus be seen that in the first period of five years (1864 to 1868) there was a diminished output per person of about 7 per cent.—21½ to 20 cwt. In the second period of five years (1868 to 1873) the output had declined by 12½ per cent.—20 to 17½ cwt. per day for each person. So in the ten years each person employed about a coal-mine has reduced his labor by nearly 19 per cent.—21½ to 17½ cwt. per day. It is a remarkable fact that, while there has been so great a reduction in the amount of work performed per man in 1873, the rates of wages have advanced from 30 per cent. upward.

A further illustration of this fact was given to the author by a mine owner or agent residing in Manchester. The average earnings of all the miners in a certain mine in 1871, was 4s. 7d. per day; while in 1872, when the rates were from 100 to 150 per cent. higher, the weekly earnings of the same men were really 2d. per week less. They averaged less than 4 working-days per week, while many worked but from 3 to 3½ days.

## II.—PRICES OF PROVISIONS, GROCERIES, HOUSE-RENT, ETC.

Having in the foregoing pages given the earnings of work-people employed in the manufacturing and mining districts of the United Kingdom in 1871, before the advance in the cost and the reduction in the hours of labor, also the rate of wages paid in 1872 and in subsequent years, and the earnings of farm-laborers in 1870 and in recent years, the readers of these pages who may desire to institute a comparison between the prices of labor in Great Britain and those in Continental Europe or the United States of America, will find the necessary data so far as regards the United Kingdom. The figures, originally given in British money, have, in most cases, been computed in the coin, but not in the paper-currency equivalent, of the United States. If the purchasing-power of the British shilling were really, as well as nominally, identical in value with 24 cents (coin) in the United States, and with the mark of Germany, which are very nearly the equivalents,\* then no future presentation of facts were necessary to enable the economist to make the comparison above indicated.

If, in the near future, a uniformity of weight and fineness of the gold-coin bearing different names and the impress of sovereignty of various countries be adopted, the traveler would find that his coin would pass current in the world's market, but he would be doomed to disappointment if he supposed that its ability to minister to his wants were the same everywhere.

## PURCHASING-POWER OF WAGES.

If a workman in Birmingham receive for fifty-four hours' labor 30s., or about \$8.33 in United States currency, and another of the same occupation in Philadelphia earn \$12.50, it would be inaccurate to say that the earnings of the latter were 50 per cent. more than those of the former. The question is not what is the United States equivalent of the thirty British shillings, but what is the purchasing-power of the wages of the one workman in England and of the other in the United States. In other words, how much of food, clothing, and shelter will the earnings of the one purchase as compared with the other? For the solution of this question other elements are necessary, and these must be considered under the next general head, viz:

\* The following table shows the relative weight and value of the gold coins of Europe, which most nearly approximate those of the United States:

Denomination.	Country.	U. S. gold.	Weight in pure gold.	
			Grains troy.	Metric grammes.
Half-eagle .....	United States .....	\$5	116.1	7.323
Sovereign .....	Great Britain .....	4.8685	113	7.323
Twenty-five-franc piece .....	France .....	4.823	112.090	7.258
Twenty-mark piece .....	Germany .....	4.764	110.626	7.168

*Prices of provisions, groceries, and other leading articles of consumption, also of house-rent and board, in the manufacturing towns of Great Britain.*

Articles.	ENGLAND.			
	1872.		1874.	1872.
	Birmingham.	Bradford.	Bradford.	Huddersfield.
<b>PROVISIONS.</b>				
Flour:				
Wheat, superfine ..... per bbl.	\$8 50	\$8 00 to \$8 50	\$7 35	\$7 98
Wheat, extra family ..... do.	9 00	9 00	7 84	8 61
Rye ..... do.				7 98
Corn-meal ..... do.			7 84	7 98
Beef:				
Fresh, roasting-pieces ..... per lb.	21	22 to 24	\$0 21 to 24	20
Fresh, soup-pieces ..... do.	12	16 to 18	19 to 21	\$0 10 to 12
Fresh, rump-steaks ..... do.	26	28	32	24 to 36
Corned ..... do.	18		22	16
Veal:				
Fore-quarters ..... do.	16	17 to 21	16 to 18	16
Hind-quarters ..... do.	18	21	17 to 21	18
Cutlets ..... do.	26	28	24	20 to 24
Mutton:				
Fore-quarters ..... do.	16	18	18 to 20	16
Leg ..... do.	21	21	24	20
Chops ..... do.	24	24	24	24
Pork:				
Fresh ..... do.	16	13 to 19	18 to 20	16
Corned or salted ..... do.	15		16 to 20	16
Bacon ..... do.	\$0 14 to 20	16 to 20	20	18
Hams, smoked ..... do.	24	20 to 24	24	24
Shoulders ..... do.	10 to 12	10	20	20
Sausages ..... do.	18	14 to 20	16 to 20	16 to 20
Lard ..... do.	14 to 18	14 to 20	20	12 to 18
Codfish, dry ..... do.			08	12
Mackerel, pickled ..... do.				08 to 12
Butter ..... do.	24 to 28	24 to 32	34 to 48	24 to 32
Cheese ..... do.	18	14 to 20	20 to 24	12 to 20
Potatoes ..... do.	02	01	01	(*)
Rice ..... do.	06	05 to 10	05 to 08	04 to 10
Beans ..... per qt.		08	08	
Milk ..... do.	06	08	08	06
Eggs ..... per doz.	16 to 24	18	24 to 36	18 to 24
<b>GROCERIES, ETC.</b>				
Tea, Oolong, or other good black ..... per lb.	60 to 72	60	36 to 80	64 to 84
Coffee:				
Rio, green ..... do.	24	32 to 40	16 to 20	30
Rio, roasted ..... do.	32	32 to 40	32 to 40	30
Sugar:				
Good brown ..... do.	08	08 to 10	07 to 08	08
Yellow C ..... do.	07	08 to 10		09 to 10
Coffee B ..... do.	08	09 to 10		09 to 10
Molasses:				
New Orleans ..... do.	06	05	05	(gallon,) 32
Porto Rico ..... do.	04	06 to 07	06	(gallon,) 32
Strap ..... do.				(gallon,) 72
Soap, common ..... do.	06	09	08	06 to 09
Starch ..... do.	10	12 to 16	19	12
Coal ..... per ton.	4 36	3 96 to 4 60	4 38	2 90 to 3 63
Oil, coal ..... per gall.	Not used†	56		
<b>DOMESTIC DRY GOODS, ETC.</b>				
Shirtings:				
Brown, 4-4, standard quality ..... per yd.	10	09 to 18	12 to 16	10 to 14
Bleached, 4-4, standard quality ..... do.	13	08 to 18	16 to 20	12 to 16
Sheetings:				
Brown, 9-8, standard quality ..... do.	14	22 to 28	42	12 to 16
Bleached, 9-8, standard quality ..... do.	17	26 to 54	48	14 to 18
Cotton flannel, good quality ..... do.		30 to 48	30 to 36	16 to 20
Tickings, good quality ..... do.	30	24 to 66	22	28 to 32
Prints ..... do.	13	07 to 20	10 to 16	14
Mousseline de laines ..... do.	21	22 to 48	16	12 to 18
Satinets, medium quality ..... do.		24 to 54	36 to 42	27 to 1 33
Brown, men's heavy ..... per pair.	12 10	2 90 to 3 87	2 88 to 3 84	2 90 to 3 37
<b>HOUSE-RENT.</b>				
Four-roomed tenements ..... per month.		4 84 to 6 05	5 76 to 7 90	3 23 to 4 00
Six-roomed tenements ..... do.		6 63 to 7 66	9 60 to 14 40	4 00 to 5 48
<b>BOARD.</b>				
For men ..... per week.		2 90 to 3 38	2 88 to 3 60	1 94 to 2 42
For women ..... do.		1 45 to 1 94	1 62 to 2 16	1 60 to 1 94

\* Half a cent to four-fifths of a cent.

† Gas almost universal, 60 cents per 1,000 feet.

‡ Brogans, elastic sides.

Prices of provisions, groceries, and other leading articles of consumption, &c.—Continued.

Articles.	ENGLAND.			
	Leeds.	1872.	1874.	1872.
		Manchester.	Newcastle-on-Tyne.	Nottingham.
PROVISIONS.				
Flour:				
Wheat, superfine.....per bbl.	\$7 57	\$7 74	\$6 17	\$7 50
Wheat, extra family.....do.		9 00	6 77	8 71
Rye.....do.		\$5 08 to 6 14	4 96	4 00
Corn-meal.....do.		3 99 to 4 11	5 08	
Beef:				
Fresh, roasting-pieces.....per lb.	20	22	22	22
Fresh, soup-pieces.....do.		10	14	10
Fresh, rump-steaks.....do.	30	24	24	22
Corned.....do.		16 to 18	16	\$0 19 to 22
Veal:				
Fore-quarters.....do.		17	18	18
Hind-quarters.....do.		20	20	22
Cutlets.....do.		22	24	22
Mutton:				
Fore-quarters.....do.		18	16	18
Leg.....do.	18	21	20	21 to 22
Chops.....do.	24	24	22	24
Pork:				
Fresh.....do.		16	16	18
Corned or salted.....do.		16	16	18
Bacon.....do.		19 to 18	18	16 to 20
Hams, smoked.....do.	22	20 to 28	24	24
Shoulders.....do.		12	16	18
Sausages.....do.		16 to 18	18	22
Lard.....do.	17	09 to 18	20	16
Codfish, dry.....do.			08	12
Butter.....do.	32	20 to 28	\$0 24 to 32	24 to 34
Cheese.....do.	18	16 to 20	18	12 to 20
Potatoes.....do.	02			(bushel,) 05
Rice.....do.		04 to 08	04	06
Beans.....per qt.			08	(Haricot,) 12
Milk.....do.		06 to 08	08	
Eggs.....per doz.	24	20 to 22	22	30 to 36
GROCERIES, ETC.				
Tea, Oolong and other good black.....per lb.	\$0 60 to 88	64 to 97	48 to 72	48 to 96
Coffee:				
Rio, green.....do.	32		24	36
Rio, roasted.....do.		32	22	40
Sugar:				
Good brown.....do.	07	06	07	06
Yellow C.....do.		07	08	07
Coffee B.....do.	09		09	
Molasses:				
New Orleans.....do.			(gallon,) 36	
Porto Rico.....do.		04	(gallon,) 48	
Sirup.....do.		06	(gallon,) 60	06
Soap, common.....do.	08	06 to 08	08	06 to 08
Starch.....do.		10	12	12
Coal.....per ton.	5 14	3 14 to 4 44	4 84	3 38 to 5 56
Oil, coal.....per gall.	(*)	48	48	(†)
DOMESTIC DRY GOODS, ETC.				
Shirtings:				
Brown, 4-4, standard quality.....per yd.		10 to 17	09	07 to 12
Bleached, 4-4, standard quality.....do.		10 to 21	16	08 to 13
Sheetings:				
Brown, 9-8, standard quality.....do.		19 to 42	18	19 to 42
Bleached, 9-8, standard quality.....do.		50 to 66	24	20 to 50
Cotton flannel, good quality.....do.		32 to 48	16	19 to 36
Tickings, good quality.....do.		19 to 33	20	24 to 48
Prints.....do.		09 to 17	14	09 to 15
Mousseline de laines.....do.		22	24	24
Satinets, medium quality.....do.		1 09	54	
Boots, men's heavy.....per pair.		2 90 to 3 63	3 34	2 42 to 3 63
HOUSE-RENT.				
Four-roomed tenements.....per month.	3 88	4 60 to 4 84	5 00	3 36 to 4 84
Six-roomed tenements.....do.		6 28 to 6 76	7 10	4 84 to 7 24
BOARD.				
For men.....per week.		(‡)		2 90 to 3 39
For women.....do.				1 45 to 1 82

\* Gas, per 1,000 feet, 84 cents.

† Varies much.

‡ Working-classes do not board.

Prices of provisions, groceries, and other leading articles of consumption, &c.—Continued.

Articles.	ENGLAND—Continued.				
	1872.	1874.			
	Sheffield.	London.	Liverpool.	St. Helena.	Sunderland.
<b>PROVISIONS.</b>					
Flour:					
Wheat, superfine.....per bbl.	\$7 71 to \$8 29	.....	\$7 02	.....	\$6 40
Wheat, extra family.....do..	8 00 to 8 57	.....	7 26	.....	7 12
Rye.....do..	5 71 to 6 29	.....	.....	.....	5 40
Corn-meal.....do..	4 57	.....	.....	.....	5 04
Beef:					
Fresh, roasting-pieces.....per lb.	20	\$0 23	20	\$0 22	22
Fresh, soup-pieces.....do..	17	18	16	20	16
Fresh, rump-steaks.....do..	28	28	22	22	24
Corned.....do..	20	22	17	22	18
Veal:					
Fore-quarters.....do..	18	22	17	22	20
Hind-quarters.....do..	18	22	19	22	22
Cutlets.....do..	24	30	24	22	22
Mutton:					
Fore-quarters.....do..	16	19	17	20	16
Leg.....do..	20 to 21	22	18	20	22
Chops.....do..	20 to 22	28	20	22	24
Pork:					
Fresh.....do..	18	20	18	18	18
Corned or salted.....do..	16	19	16	.....	17
Bacon.....do..	16 to 20	18	18	20	19
Hams, smoked.....do..	20 to 24	24	24	24	26
Shoulders.....do..	16	19	18	.....	21
Sauces.....do..	16	24	16	20	24
Lard.....do..	18	23	20	16	20
Codfish, dry.....do..	05 to 06	.....	06	.....	07
Mackerel, pickled.....do..	08	.....	.....	.....	06
Butter.....do..	24 to 28	30	34	34	34
Cheese.....do..	14 to 20	23	20	20	22
Potatoes.....do..	*16 to *24	.....	(bushel,) 96	01½	01
Rice.....do..	03 to 06	09	04	06	\$0 04 to 12
Beans.....per qt.	08	12	.....	.....	09
Milk.....do..	06	11	06	06	10
Eggs.....per doz.	18	39	29	.....	28
<b>GROCERIES, ETC.</b>					
Tea, Oolong or other good black.....per lb.	60	60	72	76	72 to 94
Coffee:					
Rio, green.....do..	24	.....	28	.....	24
Rio, roasted.....do..	28 to 40	30	34	32	36
Sugar:					
Good brown.....do..	07	06	06	06	06
Yellow C.....do..	08	07	.....	06	07
Coffee B.....do..	06	10	.....	04	07
Melasses:					
New Orleans.....do..	05	08	.....	.....	(gallon,) 46
Porto Rico.....do..	04	08	(gallon,) 72	.....	(gallon,) 54
Strap.....do..	06	.....	07	.....	06
Soup, common.....do..	04 to 08	20	12	08	06
Starch.....do..	08 to 12	20	12	12	12
Coal.....per ton.	3 14 to 3 87	.....	5 81	3 60	3 84
Oil, coal.....per gall.	56	29	.....	.....	48
<b>DOMESTIC DRY GOODS, ETC.</b>					
Shirtings:					
Brown, 4-4, standard quality.....per yd.	08 to 12	08	08	14	09 to 12
Bleached, 4-4, standard quality.....do..	10 to 16	15	15	18	12 to 24
Sheetings:					
Brown, 9-8, standard quality.....do..	12 to 20	32	25	.....	24 to 46
Bleached, 9-8, standard quality.....do..	32 to 60	36	31	.....	48 to 84
Cotton-flannel, medium quality.....do..	16 to 30	30	27	48	18 to 24
Tickings, good quality.....do..	12 to 60	24	21	184	24 to 64
Prints.....do..	12 to 24	20	15	18	10 to 14
Mousseline de laine.....do..	16 to 32	32	17	.....	28
Metineta, medium quality.....do..	1 20	75	48	.....	1 00
Boots, men's heavy.....per pair.	2 42 to 3 75	3 36	3 24	.....	2 88
<b>HOUSE-RENT.</b>					
Four-roomed tenements.....per mo.	3 36 to 4 32	.....	4 84	3 76	4 80
Six-roomed tenements.....do..	6 05	.....	6 22	.....	6 98
<b>BOARD.</b>					
For mechanics, &c.....per week.	2 90 to 3 63	.....	3 40	.....	3 36
For women employed in factories.....do..	1 45 to 1 93	.....	.....	.....	2 20

\* Per stone.

† Double width.



Prices of provisions, groceries, and other leading articles of consumption, &c.—Continued.

Articles.	WALES.		SCOTLAND.			
	1872.		Glasgow.		1872.	
	Cardiff.	Newport.	1873.	1874.	Dundee.	Leith.
<b>PROVISIONS.</b>						
Flour:						
Wheat, superfine...per bbl.	\$7 47	\$8 47	\$6 48	\$6 53		\$9 68
Wheat, extra family...do..	7 95	8 71	7 20	7 26		
Beef:						
Fresh, roasting-pieces.pr lb.	20	20	16 to 24	24	\$0 20 to \$0 22	19 to 20
Fresh, soup-pieces...do..	16	16	16 to 18	17	18	19 to 20
Fresh, rump-steaks...do..	21	22	24	24	30	30
Corned...do..	30		18	18	20	20
Veal:						
Fore-quarters...do..	18	18	14 to 16	15	16	19
Hind-quarters...do..	19	19	20 to 22	21	16	22
Cutlets...do..	24	20	32	32		26
Mutton:						
Fore-quarters...do..	18	18	14 to 16	15	20	16
Leg...do..	19	20	18 to 20	19	19	22
Chops...do..	20	22	20 to 24	23	20	24
Pork:						
Fresh...do..	18	17	16 to 20	18	16	14 to 19
Corned or salted...do..			14 to 18	16	14	
Bacon...do..	\$0 17 to 22	19	20	20	20 to 22	24
Hams, smoked...do..	17		24 to 26	25	24 to 26	26 to 28
Shoulders...do..	17		17	17		14
Sausages...do..	17	16	16	16		
Lard...do..	20	16	16 to 20	18	16	20
Codfish, dry...do..			06	06	04 to 06	06
Butter...do..	27	\$0 22 to 26	36	36	26 to 32	28
Cheese...do..		14 to 19	18	18	18	20
Potatoes...do..	09		00½		(bush.) 1 93	(bush.) 1 33
Rice...do..	03 to 08	04 to 06	04	04	04 to 07	05
Milk...do..per qt.	07 to 08	04	06	08	19 to 16	16
Eggs...do..per doz.	20	20	34	34	24 to 32	26
<b>GROCERIES, ETC.</b>						
Tea, Oolong or other good black...per lb.	44 to 97	48 to 92	60 to 72	65	48 to 84	48 to 85
Coffee:						
Rio, green...do..			30 to 32	31		
Rio, roasted...do..		40	26 to 40	28	32 to 40	31
Sugar:						
Good brown...do..	08	07	65	65	07 to 08	09
Yellow C...do..		08	07 to 08	08	10	
Coffee B...do..				07½	08	
Molasses:						
New Orleans...do..			04	04	06	
Rorto Rico...do..				05	06	65
Sirap...do..			05	06½		66
Soup, common...per lb.	06 to 07	06	06 to 07	11	06 to 09	08 to 09
Starch...do..	10 to 12	10	10 to 12		10 to 14	12 to 13
Coal...per ton.	5 60		4 00	3 87	5 80 to 6 00	6 24
Oil, coal...per gall.						40
<b>DOMESTIC DRY GOODS, ETC.</b>						
Shirtings:						
Brown, 4-4, standard...per yd.	09 to 13	09 to 13	07 to 12	09½		10
Bleached, 4-4, standard...do..	07 to 17	07 to 17	09 to 18	13½	16	14
Sheetings:						
Brown, 9-8, standard...do..	24 to 30	26 to 30	24	24	12	30
Bleached, 9-8, standard...do..	32 to 42	26 to 36	34	17	32	42
Cotton flannel, medium...do..	24	24		18		22
Tickings, good quality...do..	30	30	36	22	*24 to 28	10 to 17
Prints...do..	15 to 19	15	12		11	14
Mousseline de laines...do..	18 to 21	18			20	
Satinets, medium quality...do..	24	24			1 33 to 1 93	
Boots, men's heavy...per pair.	3 39 to 4 35	3 39			3 87 to 4 64	3 44
<b>HOUSE-RENT.</b>						
Four-roomed tenement...pr mo.	4 84	2 90			6 05	3 63
Six-roomed tenements...do..	6 78 to 7 26	4 35			7 26	5 63
<b>BOARD.</b>						
For mechanics, &c...per week.	2 90 to 3 39	2 90	3 60	3 63	2 90 to 3 63	2 42 to 2 96
For women in factories...do..	1 93		2 65	2 66	1 93 to 2 18	1 37

\* Linen.

Prices of provisions, groceries, and other leading articles of consumption, &c.—Continued.

Articles.	IRELAND.				Average in the United Kingdom.
	Belfast.	Londonderry.	Portlaw.		
	1874.	1873.	1873.	1874.	
PROVISIONS.					
Flour :					
Wheat, superfine..... per bbl.	\$5 81 to \$6 78		\$7 20	\$6 33	\$7 43
Wheat, extra family..... do.		\$8 71	9 00	6 22	8 07
Rye..... do.					5 54
Corn-meal..... do.				4 14	5 47
Beef :					
Fresh, roasting-pieces..... per lb.	14 to 15	20	18	16	21
Fresh, soup-pieces..... do.	14 to 16	14	14	14	16
Fresh, rump-steaks..... do.	14 to 16	24	19	18	25
Corned..... do.	15	16		14	20
Veal :					
Fore-quarters..... do.	22				18
Hind-quarters..... do.	22				20
Cutlets..... do.	23				25
Mutton :					
Fore-quarters..... do.	12 to 18	20	17	15	17
Leg..... do.	12 to 18	20	18	15	19
Chops..... do.	12 to 18	24	18	17	22
Pork :					
Fresh..... do.	12 to 13		13	16	21
Corned or salted..... do.	14 to 16		12	13	16
Bacon..... do.	16	\$0 18 to 22	24	19	19
Hams, smoked..... do.		24	26	24	24
Shoulders..... do.	12 to 18		24	18	17
Sausages..... do.	12 to 18		16	15	18
Lard..... do.	12	20	12	12	17
Codfish, dry..... do.		04½	06	07	07
Mackerel, pickled..... do.					08
Butter..... do.	24	24	24	28	29
Cheese..... do.	16	20	20	20	19
Potatoes..... do.	(bushel,) 36	(bushel,) 40	00½	00½	28
Rice..... do.	04	04 to 08	05	04	06
Beans..... per qt.		05	04	04	09
Milk..... do.					08
Eggs..... per doz.	16 to 24	24	18	24	25
GROCERIES, ETC.					
Tea, Oolong or other good black..... per lb.	44 to 64	84	72	28	69
Coffee :					
Rio, green..... do.	24				28
Rio, roasted..... do.	34	32	40	37	35
Sugar :					
Good brown..... do.	05 to 06	07	07	06	07
Yellow C..... do.				07	08
Coffee B..... do.				06	08
Molasses :					
New Orleans..... per gall.					53
Porto Rico..... do.				27	60
Strap..... do.				1 46	76
Soap, common..... per lb.	07	06	07	08	08
Starch..... do.	09	09	06	08	11
Coal..... per ton.	4 35 to 6 05	5 80 to 7 20	6 26	5 84	4 72
Oil, coal..... per gall.		32	36		46
DOMESTIC DRY GOODS, ETC.					
Shirtings :					
Brown, 4-4, standard quality..... per yd.		08 to 14	11	08	11
Bleached, 4-4, standard quality..... do.		10 to 20	12	10	14
Sheetings :					
Brown, 9-8, standard quality..... do.		36 to 60	11	12	25
Bleached, 9-8, standard quality..... do.			14	16	33
Cotton-flannel, medium quality..... do.		22 to 24	24	20	27
Tickings, good quality..... do.			24	16	28
Prints..... do.				11	15
Mousseline de laine..... do.		24 to 36			23
Satinets, medium quality..... do.		32 to 44			28
Boots, men's heavy..... per pair.		2 66 to 6 05	2 18	2 07	3 23
HOUSE-RENT.					
Four-roomed tenements..... per mo.	2 00 to 2 50		1 93	2 43	4 14
Six-roomed tenements..... do.	3 00 to 4 00		2 42	3 41	5 97
BOARD.					
For mechanics, &c..... per week.		2 16 to 3 60		2 92	3 11
For women employed in factories..... do.		1 68 to 1 92		1 46	1 93

## PRICES OF PROVISIONS, GROCERIES, ETC.

[From the author's notes.]

**BIRMINGHAM.**—Rent of kitchen and two rooms above, in rear of house, 4s. a week; in front, 5s. Bread, 8d. for 4-pound loaf. Meat, 1s. per pound. Cheese, good American, 7d. per pound. Rent of three rooms, about 3s. 6d. per week for back, and 4s. 6d. for front; average, about 4s. House-rent in suburbs, lower than in the city—4s. to 4s. 6d. for house of four rooms; 6s. for six rooms.

**SHEFFIELD.**—Rent of rooms, ordinary price, 4s. per week for four rooms, or about 1s. per room. Good rooms rent for more. A respectable small house may be had for 6s. a week. Meat in Sheffield is good. Workingmen buy the best, and they can afford it. Excellent beef and mutton, 10½d. per pound; good at 8½d. American bacon, 7d. to 9d. Butter, from 1s. to 1s. 2d.

**MANCHESTER.**—Leg of veal, 9d.; best fillet, 6d. Leg of mutton, 9d. Good beef, for stewing, 7½d.; for roasting, 9d. to 9½d. Tea, very good, 2s. 4d. to 2s. 8d.; best, 3s. Good white sugar, 4d.; best, 4½d.; brown, 3d. to 3½d. Flour, 2s. to 2s. 1d. per stone. Bacon, 7d. to 9d. Cheese, 6d. to 8d. Dry goods, low. Rent of rooms, 4s. for four rooms. In another part of the city rents are 3s. 9d., 4s. 6d., and 4s. for four rooms. Good cheese, 8d., chiefly American, which is very good, and occasionally better than English, at the same price. Good tea, 2s. 8d.; best, 3s.

**HALIFAX.**—Four rooms in upper part of house, from £8 to £9 per year. Better houses, built by Crossleys, two rooms on a floor, larger frontage, at 10 guineas a year, and poorer at lower rates.

**BRADFORD.**—Rent of houses, five or six rooms, for clerks, £18 to £20 per year.

**NOTTINGHAM.**—Rent of three to four rooms, average 4s. per week. Some nice houses in a good street rent for the same. Within the walls of the old town four to five rooms, including taxes, 4s. to 4s. 6d. Price of provisions much the same as in other western towns. About 10d. to 1s. for the best beef; 8d. to 10d. for very good; quite good at 9d. Veal 10d. by the leg; 13d. for outlets, and much less for the poorer pieces.

**HUDDERSFIELD.** Price of board, for workmen, 10s.; for workwomen, 7s. per week.

**CORK.** (From Mr. Derby's notes.) Prices in a provision store: Beef and mutton, 10d. to 1s. per pound; pork and bacon, 9d.; corned beef, 9d.; smoked hams, 10d. to 1s.; cabbages, 1d. each.

## LONDON WHOLESALE PRICES IN 1872.

From the monthly statement of the wholesale prices of the following articles in the London markets during each month of the year 1872, the following average, expressed in United States coin, has been computed, and the average pro-rata price stated per pound:

	Per cwt.	Per lb.
Pork: Hams, smoked.....	\$26 59	20 23. 7
Lard .....	17 03	15. 2
Butter.....	29 24	26. 1
Cheese.....	15 98	14. 3
Rice.....	3 29	2. 9
Coffee, Jamaica middling.....	25 84	23
Sugar, good brown.....	8 77	7. 9
Molasses, West Indies.....	3 08	2. 7

The following statement, forwarded by Mr. Consul Horan, gives the retail prices of cotton and other goods in Sunderland :

*Statement showing the average retail prices of the following articles of dry goods in Sunderland, supplied by Messrs. Sheraton, drapers, in November, 1874.*

Articles.	Price.	Articles.	Price.
Gray shirtings:	<i>Cents.</i>	Gray sheetings—Continued.	<i>Cents.</i>
30-inch.....	6 to 9	80-inch.....	32 to 34
33-inch.....	7 to 11	Double warp, 80-inch.....	40 to 54
36-inch.....	8 to 14	White sheetings:	
40-inch.....	10 to 16	72-inch.....	44 to 60
White shirtings:		80-inch.....	54 to 66
Fine make, 36-inch.....	10 to 20	Double warp, 90-inch.....	60 to 84
Stout make, 36-inch.....	13 to 29	Ticks:	
White flannels:		Cotton, 27 to 32 inch.....	18 to 24
Lancashire.....	28 to 48	Union, 32-inch.....	20 to 30
Sarony, finer.....	28 to 48	Linen:	
Fancy flannels:		White or brown, 32-inch.....	30 to 36
Unions.....	14 to 30	Prints:	
All wool.....	36 to 66	30 to 32 inch.....	9 to 16
Gray sheetings:		Satin cloths, French llamas, and various	
72-inch.....	24 to 40	other dress-materials.....	20 to 48

## WHOLESALE PRICES OF GRAIN.

*Table showing the average price of wheat per imperial quarter\* in England and Wales for the last week of each month during ten years, from 1863 to 1872, inclusive, the pound sterling being computed at \$4.84.*

Month.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.
January.....	\$11 59	\$9 84	\$9 31	\$11 01	\$15 04	\$17 50	\$12 44	\$10 32	\$12 70	\$13 51
February.....	11 27	9 80	9 23	10 99	14 49	17 74	11 99	9 82	13 00	13 49
March.....	10 97	9 65	9 27	10 86	14 74	17 62	11 23	10 26	13 35	13 10
April.....	11 05	9 47	9 53	10 99	15 22	17 68	10 99	10 30	14 41	13 18
May.....	11 23	9 53	10 10	11 45	15 79	17 48	10 83	10 97	14 49	13 97
June.....	11 23	9 68	9 96	12 34	8 42	16 31	11 69	12 20	14 49	14 31
July.....	11 11	10 64	10 36	12 58	8 63	15 18	12 52	12 78	14 63	14 29
August.....	11 07	10 26	10 97	12 30	16 11	13 77	13 10	12 40	13 67	14 39
September.....	10 58	9 90	9 88	12 44	15 50	12 96	12 21	10 97	13 85	14 31
October.....	9 63	9 37	10 24	12 70	17 04	12 80	11 17	11 73	13 69	.....
November.....	9 74	9 35	11 33	13 91	16 55	12 34	11 01	12 20	13 51	.....
December.....	9 78	9 15	11 35	14 52	16 29	12 24	10 50	12 64	10 97	.....
Average for each year.....	10 77	9 73	10 13	12 17	14 48	15 32	11 65	11 38	13 53	13 84
Average for each year per bushel.....	1 34	1 21	1 27	1 52	1 81	1 91	1 46	1 42	1 60	1 73

\* The imperial quarter (= 8 imperial bushels of British standard) contains 17,74½ cubic inches, and is equivalent to 8½ standard bushels of the United States.

† The imperial bushel is about 3 per cent. larger than the standard bushel of the United States—the former containing 2,218.19 cubic inches and the latter 2,150.42.

The average price of grain per quarter (imperial measure) in England and Wales for the three months ended Christmas, 1872, was as follows :  
Wheat, \$13.85; barley, \$10.20; oats, \$3.52.

## WHOLESALE PRICES OF GRAIN.

Statement showing the average price of grain per imperial quarter in England and Wales during thirty-five years, from 1840 to 1874, inclusive.

Period.	Wheat.	Barley.	Rye.	Period.	Wheat.	Barley.	Rye.
1840-'44, (five years) ..	\$13 88	\$7 66	\$3 22	1867.....	\$15 48	\$9 64	.....
1845-'49, (five years) ..	13 96	8 96	8 10	1868.....	15 30	10 32	.....
1850-'54, (five years) ..	8 70	6 96	7 60	1869.....	11 56	9 46	.....
1855-'59, (five years) ..	13 64	8 86	9 30	1870.....	11 26	8 30	.....
1860.....	12 78	8 78	8 70	1871.....	13 60	8 68	.....
1861.....	13 28	8 66	8 56	1872.....	13 68	8 96	.....
1862.....	13 30	8 48	8 72	1873.....	14 08	9 70	.....
1863.....	10 74	8 14	7 78	1874.....	13 38	10 78	.....
1864.....	9 64	7 18	7 30	Average for 35 yrs.		13 20	9 14
1865.....	10 04	7 14	.....			.....	.....
1866.....	11 98	8 98	.....			.....	.....

The general average of the price of wheat, barley, and oats, in England and Wales for the years 1863, 1869, and 1870, were: Wheat, per quarter, \$12.70; barley, \$9.36; oats, \$6.15.

## PRICES OF MEAT AND OTHER PROVISIONS.

Prices of beef and mutton in Great Britain in the following months of 1872.

Markets.	January.	April.	July.	October.	Average.
London:					
Beef..... per 8 pounds..	\$1 21 to \$1 41	\$1 25 to \$1 33	\$1 37 to \$1 53	\$1 29 to \$1 41	\$1 38
Mutton..... do.....	1 45 to 1 69	1 21 to 1 33	1 33 to 1 69	1 45 to 1 61	1 47
Newcastle:					
Beef..... per 14 pounds..	\$ 23 to \$ 42	\$ 17 to \$ 29	\$ 17 to \$ 60	\$ 35 to \$ 42	\$ 33
Mutton..... per pound..	18 to 21	21 to 24	16 to 21	17 to 19	19
Edinburgh:					
Beef..... per 14 pounds..	\$ 29 to \$ 54	\$ 17 to \$ 29	\$ 17 to \$ 66	\$ 29 to \$ 48	\$ 48
Mutton..... per pound..	18 to 21	20 to 23	17 to 20	16 to 19	19

Table showing the average price of wheat, meat, and potatoes in each quarter of the five years ending December 31, 1874.

Quarter ending—	Wheat in England and Wales.	Meat at the Metropolitan Meat Market.		Potatoes at Water-side Mkt., South-wark.
		Beef.	Mutton.	
	Per q'ter.	Per lb.	Per lb.	Per ton.
March 31, 1870 .....	\$10 14	\$0 11.5	\$0 12.5	\$24 48
June 30, 1870 .....	10 72	11.25	12.75	30 00
September 30, 1870 .....	12 08	12	13.25	28 00
December 31, 1870 .....	12 02	12.75	13.25	16 00
March 31, 1871 .....	12 68	12.75	13	26 00
June 30, 1871 .....	14 34	13	14	15 12
September 30, 1871 .....	13 88	13.5	15	16 32
December 31, 1871 .....	13 50	13	13.5	21 36
March 31, 1872 .....	13 28	12.25	14.25	24 00
June 30, 1872 .....	13 60	12.75	14.75	32 00
September 30, 1872 .....	14 14	13.25	15.50	28 56
December 31, 1872 .....	13 74	13.50	14.50	40 00
March 31, 1873 .....	13 40	13.50	15.25	46 68
June 30, 1873 .....	13 54	14.75	16.25	50 00
September 30, 1873 .....	14 72	14.5	15.75	25 68
December 31, 1873 .....	14 66	13.5	14.25	28 00
March 31, 1874 .....	14 92	13.5	13.75	28 56
June 30, 1874 .....	14 66	13	13.25	36 00
September 30, 1874 .....	13 30	13.25	13	21 00
December 31, 1874 .....	10 64	13	12.50	20 16
Average.....	13 15	13.02	14.01	27 91

*Wholesale prices of wheat, beef, and mutton, in London and Manchester, for each month in the year 1874.*

Date.	Wheat.	Beef.	Mutton.	Date.	Wheat.	Beef.	Mutton.
	Gazette price, per imperial quarter.	Inferior mid- dling, per 8 pounds.	Middling, per 8 pounds.		Gazette price, per imperial quarter.	Inferior mid- dling, per 8 pounds.	Middling, per 8 pounds.
January 1.....	\$14 80	\$1 08	\$1 24	August 1.....	\$14 32	\$1 10	\$1 10
February 1.....	15 30	1 02	1 06	September 1.....	11 94	1 04	1 02
March 1.....	14 76	90	1 02	October 1.....	11 06	1 18	1 10
April 1.....	14 46	1 00	1 04	November 1.....	10 50	1 06	1 00
May 1.....	14 90	1 04	1 04	December 1.....	10 72	1 00	1 08
June 1.....	14 80	96	1 12	Average of year...			
July 1.....	14 56	1 04	1 00				

### PRICE OF BUTCHERS' MEAT.

*Average yearly price of butchers' meat, (per stone of eight pounds, sinking off,) distinguishing the various kinds as sold in the Metropolitan Cattle Market, in each of the years 1868, 1869, and 1870.*

Kind of meat.	Average for the years—			Kind of meat.	Average for the years—		
	1868.	1869.	1870.		1868.	1869.	1870.
Beasts:				Sheep—Continued.			
Inferior.....	\$0 78½	\$0 83	\$0 86	Fourth class, South-			
Second class.....	89½	98½	1 05	downs.....	\$1 20½	\$1 38	\$1 34½
Third class, large prime	1 05	1 18	1 19	Lambs.....	1 49	1 45	1 64
Fourth class, Scots.....	1 20	1 30	1 28	Calves:			
Sheep:				Coarse.....	1 00½	1 12	1 01
Inferior.....	83½	92	84	Small prime.....	1 17	1 33½	1 30
Second class.....	89½	1 11½	1 01½	Pigs:			
Third class, long coarse				Large hogs.....	84½	1 03	1 16
wool.....	1 10	1 27½	1 21½	Small neat porkers.....	98	1 24½	1 36½

### CONTRACT PRICE OF PROVISIONS FURNISHED THE ARMY AND NAVY.

The following tables show the contract price at which bread, meat, and the other principal articles of provisions were furnished to the troops in Great Britain and Ireland, and also for the use of the Royal Navy during the years 1868, 1869, and 1870, and indicate to some extent the prices of food in the Kingdom:

*Contract price of bread, meat, and rations supplied to the troops in each district of Great Britain for the first and second half-year of 1870.*

Districts.	Bread, price per 4-pound loaf.		Meat, price per pound.		Cost of ration of 1 pound of bread and ½ pound of meat.	
	First half-year.	Second half-year.	First half-year.	Second half-year.	First half-year.	Second half-year.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
London.....	9	12 32	11 96	12 02	11 68	12 08
Aldershot.....			12 43	12 6	11 8	11 86
Channel Islands.....	10 7	10 38	12 76	13 64	12 22	12 84
Northern.....	10 76	10 12	13 02	12 4	12 40	11 82
Eastern.....	10 6	9 44	11 9	11 94	11 46	11 30
Southeastern.....	11 24	11 50	14 16	13 06	13 44	12 66
Woolwich.....	10 1	9 26	11 72	12 2	11 34	11 44
Chatham.....	11 56	10 64	15 18	12 42	13 16	12 43
Southwestern.....	11 62	10 6	13 68	13 10	11 52	11 96
Western.....	10 6	10 86	11 86	12 32	11 52	11 96
South Wales.....	11 16	10 86	12 78	12 32	12 32	11 96
North Britain.....	10 96	10 7	12 08	12 12	11 8	11 8
Average.....	10 02	10 61	12 80	12 51	12 06	12 01

*Average prices paid for army purveyors' stores in England in the years 1868, 1869, and 1870.*

Articles.	1868.	1869.	1870.	Average of 3 years.
Tea.....per pound..	\$0 47	\$0 46½	\$0 50.8	\$0 48.1
Sugar, crushed wet lumps.....per cwt..	9 67½	9 46	10 21	9 78
Barley, best Scotch.....do..	4 30	4 28	4 38	4 27
Rice, cleaned Patna.....do..	4 12	3 92	4 31	4 12
Linseed meal.....do..	4 48	4 78	5 47	4 91
Soap, hard, yellow.....do..	7 36	6 92	7 80	7 33
Porter, imperial pinta, per dozen, 8 to gallon.....	80½	79½	78	77
Ale, imperial pinta, 8 to gallon.....	94½	85½	78	86
Fowls.....each..	53	53½	53½	53
Milk.....per gallon..	22½	22.5	23	23
Potatoes.....per cwt..	1 56	1 48	1 54	1 53
Vegetables, mixed.....per pound..	02	02	02	02
Eggs.....per dozen..	22	22	23	22

*Contract prices of bread (per 4-pound loaf) supplied to the troops in each county of Ireland in each half of the years of 1868, 1869, and 1870.*

County or station.	1868, half-year to—		1869, half-year to—		1870, half-year to—	
	May 31.	November 30.	May 31.	November 30.	May 31.	November 30.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
Antrim.....	14	13.8	11.9	9.88	10.2	9.44
Armagh.....	16	15	12.5	10	10	9.5
Buttevant.....	14.5	13.38	11.36	10.9	10.78	9.74
Carlow.....	15.5	14.8	13.5	11.8		
Cavan.....	19.98	15.5	14.48	13	12.48	10.75
Clare.....	18.5	17.7	13.74	12.5	13	10
Cork, except Fermoy and Buttevant.....	14.98	12.98	10.96	9.5	10	8.8
Fermoy.....	14.5	14.2	11.4	10.4	10.9	9
Down.....	16.98	15.46	11	9.98	9.46	2.94
Fermanagh.....	17.8	15.5	13.5	11.8	11.2	10.5
Galway.....	15.96	17	13.5	12	11.5	10.8
Kerry.....	16.4	16	13	11	11.6	10
Kildare, except Curragh and Newbridge.....	18	17.7	15	13		15
Kilkenny.....	14	13.5	12	10	11	8.96
Kings County.....	17	16.8	13	12	13	10.46
Limerick.....	14.76	13.96	11.4	10.2	10.66	9.48
Londonderry.....	15.56	14.8	19	11.8	12.5	11.8
Longford.....	17	15.4	13.4	11.5	11.5	11
Louth.....	15.4	14.74	11.9	10.2	10.4	9.8
Mayo.....	18	15.5	19	10.4	9	9
Monaghan.....	19	15	14	11	12	11
Sligo.....	17.5	17.5	13	10	10.5	11.5
Tipperary.....	17.5	15.4	13.4	11.4	11.9	9.8
Waterford.....	15.8	15.5	12	10.4	11.4	9.5
Westmeath.....	17	15.4	12.8	10.9	11.48	9.8
Wexford.....	19.5	19	17	11.4	12	10.4
Average.....	16.58	15.44	12.84	11.01	11.18	10.22
Kildare, Curragh of.....flour per sack of 280 pounds.	\$12 34	\$12 06	\$0 42	\$8 28	\$8 70	\$7 80
Dublin.....flour per sack of 280 pounds.	12 08	11 94	9 32	7 96	8 28	7 38

*Contract-prices of fresh meat supplied to the troops in each county of Ireland in each of the half-years of 1868, 1869, and 1870.*

Counties.	1868, half-year to—		1869, half-year to—		1870, half-year to—		Average.
	May 31.	November 30.	May 31.	November 30.	May 31.	November 30.	
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.	
Antrim .....	9.5	9	10.36	9.2	11.56	10.5	10.02
Armagh .....	10	9	9	8.5	9.5	11	9.5
Buttevant .....	11.86	10.74	9.92	9.5	8.88	8.44	9.89
Carlow .....	11.5	12	11.5	11.94			11.73
Cavan .....	13	16	15	14	13	12	14
Clare .....	9.92	10.5	9.5	9	10.5	8	9.57
Cork, except Fermoy and Buttevant .....	12.5	10.92	10.4	10.24	8.96	9.8	10.47
Down .....	9	9	11	10	10.46	9.5	9.83
Dublin .....	11.48	11.56	11.38	11.4	11.75	11.42	11.5
Fermanagh .....	9.5	9.5	10	10	10	9.5	9.75
Fermoy .....	11	9.94	9.5	9.46	11.38	9.34	10.10
Galway .....	10	8	9	8.5	9.5	10	9.17
Kerry .....	13.5	9.5	10	8.5	9.5	9	10
Kildare, except Curragh and Newbridge .....	16	12	11.8	11.94		12.5	12.85
Kildare, Curragh of .....	12.2	12.36	11.8	11.6	11.75	11.74	11.91
Kilkenny .....	7.48	9.38	9.5	8.92	10.5	9.44	9.2
Kings County .....	8.96	8.4	8.44	10.2	11	9.5	9.42
Limerick .....	8.98	7.7	8.2	7.76	8.96	7.7	8.22
Londonderry .....	10.4	11	11	11	11	11	10.9
Longford .....	11	9.5	11.5	9.5	10.5	9.5	10.95
Louth .....	9.92	8.88	13.96	9.4	9.76	9.34	10.21
Mayo .....	8.5	7.88	9.5	7.94	10	11.94	9.18
Monaghan .....	14	14	11.5	10.5	9.5	9	11.42
Sligo .....	13.5	11	12	12.4	13.5	13.5	12.63
Tipperary .....	10.84	10	11	11	10	8.5	10.22
Waterford .....	8.8	8.5	9	8	9	8	8.55
Westmeath .....	10	9.5	8.98	9	9.5	8	9.16
Wexford .....	12	11.5	11	10	10	9.5	10.66
Average .....	10.91	10.96	10.56	9.95	10.38	9.34	10.97

*Average prices at which the principal articles of provisions were purchased or manufactured at home for the use of the royal navy in the respective years ended March 31, 1868, 1869, and 1870.*

Articles.	1868.	1869.	1870.	Average.
Bread .....	per 100 pounds.			
Blacuit .....	4 58	4 14	3 98	3 98
Sugar .....	5 80	5 84	5 96	5 80
Tea .....	38 88	40 04	34 38	37 77
Raisins .....	7 22	5 40	6 70	6 44
Fresh beef .....	11 52	10 82	11 18	11 17
Vegetables .....	1 14	1 20	1 24	1 19
Salt pork .....	13 48	14 40	14 94	14 27
Rice .....	4 96	4 96	3 36	4 43
Preserved boiled beef .....	21 00	21 60	12 98	18 53
Preserved potatoes .....	8 48	8 96	7 66	8 35
Flour .....	4 72	4 52	3 80	4 15
Wheat for conversion .....	3 62	3 18	2 34	3 05
Oats for conversion .....	2 58	2 64	2 24	2 49
Oat-meal .....	4 52	4 54	4 14	4 40
Cocoa .....	13 16	12 22	12 06	12 48
Pepper, raw .....	7 16	7 64	8 26	7 69
Fresh beef, for curing and preserving .....	12 58	13 76	12 76	13 03
Salt beef .....	14 84	16 78	15 06	15 56
Salt, white, for curing beef and suet .....	46	46	50	47
Lime or lemon juice .....	62 64	49 24	46 48	52 79
Vinegar .....	12 58	12 76	12 56	12 63
Split pease .....	26 54	24 62	20 84	24 00
Milk .....	per 100 quarts.			
	20 12	16 52		18 32



## INCREASE IN THE COST OF LIVING.

In the following paper Mr. Jones, United States consul at Newcastle-on-Tyne, presents his views in regard to the advance in the cost of provisions in 1872 :

The cost of living has advanced between 30 and 40 per cent. this year. The price of coal is nearly double what it could be purchased for on the 1st of January last; flour has risen from 50 cents to 60 cents per 100 pounds; butchers' meat is 2 to 4 cents higher; and now that the potato-crop has failed, not alone in Ireland, but generally throughout the United Kingdom, we are certain to experience a serious advance in what we might term the great staple of the laboring classes.

The employers of labor in England reason about as follows :

"Let us obtain the necessaries of life for our workmen as cheaply as possible, so as to enable them to render us their services at a low wage; this, together with our cheap money, and natural advantages in mineral resources, in the close proximity of coal and iron, as well as by our favorable geographical position for the international market, will enable us to undersell all others and confine competition to our own land."

I believe it to be a well-established tenet in political economy, that in proportion to the increase of population the price of animal food will advance in this country. It is true that this principle may occasionally be overruled by shipments of live stock from the continent, yet I apprehend that this can bring about no serious exception to the rule, for upon the first appearance of the rinderpest, the cattle-plague, or kindred diseases, upon the plains of Yorkshire or among the hills of Carnarvon, the importation of cattle will be stopped by order of the privy council; therefore, it is fair to anticipate that a traffic attended by so many difficulties, risks, and uncertainties will never attain the magnitude necessary to nullify the principle laid down. The farmers of this country must be induced to abandon wheat-growing and turn their mind and attention to stock-raising, else matters will soon become serious.

Employers of labor are not unmindful of the situation. Herculean efforts have been and are still being made to induce the working-classes to adopt the Australian meat as a general article of diet. Capitalists have formed limited-liability companies for the development of this trade.

It is permitted to go abroad that Australian beef and mutton are to be found upon the tables of the aristocracy of the country.

At a public meeting held in the adjoining borough of Gateshead, a few months ago, for the agitation of the meat question, the mayor of Newcastle asserted by authority that one of the wealthiest men in this district used this class of food twice a week, and preferred it to the meat procured from his regular butcher.

This policy will certainly contribute to wipe away the natural prejudices of the masses against meat killed, cooked, and canned by unknown hands 15,000 miles away.

## COST OF CLOTHING.

In the foregoing tables the cost of provisions and of house-rent per week has been given, also the price of various articles of dry goods and of boots, thus furnishing some data for a computation of the cost of living in the United Kingdom as compared with the United States. While the prices of the principal articles of subsistence are on the whole as high in the former as in the latter country, the rental of rooms and the price of clothing are only about one-half as much as in the United States. From a careful computation made in London, it is believed that clothing can be purchased there at 50 per cent. of the gold and 56 per cent. of the currency prices in New York. From a tailor in High Holborn, who makes more clothing for citizens of the United States than any other in London, the following prices were obtained :

Good business suits, made to order, of good and fashionable material, cost from 58s. to 60s.; the lowest price of similar quality in New York, ready made, being \$28 to \$30. Suits of fine blue cloth, 82s. 6d., (\$19.96,) which it is believed could not be obtained anywhere in the United States for \$40. Fine black cloth dress-vests, 10s.; dress-trousers of best black doeskin, 30s.; frock-coats of the best black cloth that could be purchased in London, silk lined, 80s., (\$19.36;) overcoats from 50s. to 60s., the latter of good beaver-cloth, with silk-velvet collar.

Ready-made clothing is sold at lower rates. Good-looking trousers were seen at various clothing-stores with the prices of 11s. 6d and 12s. 6d. affixed. Laboring men are not only able to purchase their clothing at about one-half the rates paid in the United States, but are in the habit of wearing at their work fustian or corduroy suits, which are not only cheaper in price but of great durability; so that an English workman's clothing costs but about one-third the price paid by his brother workman in the United States. It is difficult to present the prices of the cheaper articles of clothing in such a manner as to enable an intelligent opinion to be formed of their cost as compared with similar articles in this country; but the prices paid for cloth and clothing for the army and for the hospitals, as shown in the following statement, indicate the lowest rate at which woollens can be obtained in England.

PRICES OF ARMY CLOTH AND CLOTHING.

The prices paid for cloth and for some of the articles of clothing purchased for the British army, also for one of the hospitals, as given in the following tables, afford some indication of the cost of clothing in England suitable for the working-classes:

*Prices paid for army cloth and clothing for the British army in the years 1868, 1869, and 1870*

Articles.	Per yard.			Articles.	Per yard.		
	1868.	1869.	1870.		1868.	1869.	1870.
Cloth for infantry:				Rifle—Continued.			
Sergeants' scarlet.....	\$2 02½	\$2 16	\$1 87	Tunic and overall, No. 3.....	\$3 21	\$2 18	\$1 88
Privates' red.....	1 95	1 87	1 52	Tunic and overall, No. 3.....	2 21	2 18½	1 87½
Staff-sergeants' gray.....	2 02	2 02	1 60	Tartan for kilt.....	73	80	76
Privates' gray.....	1 45	1 45	1 22	Tartan for trousers.....	73	80	76
Cloth for rifle:				Cavalry cloak cloth:			
Sergeants' tunic.....	2 20	2 22	1 91	Sergeants' blue tunic.....	\$ 50½	2 50	2 04
Sergeants' trousers.....	2 46	2 46	2 46	Sergeants' blue overall.....	2 22	2 20½	1 85
Privates' tunic.....	2 12½	2 08	1 68	Cavalry cloak cloth.....	2 21	2 19	1 88
Privates' trousers.....	1 89	1 89	2 70	Privates' blue tunic.....	2 32	2 19	2 19
Tunic and overall, No. 1.....	3 36	3 36	2 88	Infantry regulation boots, per pair.....	2 57	2 39	2 40½
Tunic and overall, No. 2.....	2 50	2 44	2 04				

*Prices paid for army clothing in each of the years 1868, 1869, and 1870.*

Articles.	1868.			1869.			1870.		
	Infantry.	Highland.	Rifle.	Infantry.	Highland.	Rifle.	Infantry.	Highland.	Rifle.
Clothing:									
Staff-sergeants' tunic....	\$12 94	\$15 15	\$11 24	\$11 61	\$14 54½	\$8 68	\$11 32½	\$13 67½	\$12 40½
Staff-sergeants' trousers.....	4 53½	5 46	5 29	4 56	5 24½	4 50½	4 46½	5 89	4 08
Sergeants' tunic.....	5 56	5 57½	5 76	5 87	7 20	5 72	6 02½	7 19	5 71
Sergeants' trousers.....	2 77½	3 89½	3 03½	3 27½	4 43½	3 52	3 24½	4 87½	3 26
Men's tunic.....	5 62	5 17	5 44	5 30	6 07½	6 02	5 22½	5 70	5 87½
Privates' tunic.....	4 72	5 01½	4 88½	4 52½	5 29	5 03	4 46½	4 98	4 87
Privates' trousers.....	2 65½	3 02	2 46	2 61½	3 41½	2 57½	2 46½	3 55½	2 43
Drummers' or buglers' tunic.....	5 96	6 20	5 48½	5 22	6 83½	6 01	5 81	6 42½	5

## PRICES OF CLOTHING.

*Prices paid for various articles of clothing, &c., at Bethlehem Hospital, in the year 1870.*

Articles.	1870.
Cloth coats, (various colors).....	each 96 04
Cloth waistcoats, (various colors).....	do 1 08
Cloth trousers, (various colors).....	do 3 84
Cloth, servants' blue { Coats.....	do 11 12
{ Waistcoats.....	do 3 00
{ Trousers.....	do 6 16
Canvas out of use except for coal-carrying { Jackets.....	do 1 92
{ Waistcoats.....	do 54
{ Trousers.....	do 88
Servants' frocks.....	do 3 84
Flannel { Drawers and waistcoats.....	do 96
{ Petticoats.....	do 1 36
Tick feather-beds.....	do 13 44
Tick feather-pillows.....	do 2 04
7-4 Whitney blankets.....	per pair 9 04
8-4 Whitney blankets.....	do 2 56
9-4 Whitney blankets.....	do 3 39
11-4 coverlets, white.....	per dozen 24 80
Men's stockings.....	per dozen 4 44
Women's stockings.....	do 3 36
Linen handkerchiefs.....	per dozen 1 02
Blue romals.....	do 1 38
Dowlas, (30 inches).....	per yard 19 1/2
Cheek, (30 inches).....	do 24
Shirts.....	each 1 44
Cotton prints.....	per yard 15
List shoes.....	per pair 94
Men's boots.....	do 9 58
Women's home-made { Boots.....	do 1 50
{ Shoes.....	do 96

## CO-OPERATIVE ASSOCIATIONS.

Industrial co-operation having already been briefly alluded to, it may not be improper in this place to refer to those co-operative societies for the purchase and sale of the necessaries of life, which in England are in much favor. Associations somewhat similar are not unknown in this country, especially in New England, where, some twenty years ago, they were numerous, and apparently successful; but for some defect, either of organization or administration, they gradually declined in number and popularity. In England, however, they have, on the whole, met with decided success, there being at the present time 1,400 of such societies, with a total membership of nearly 500,000. Last year they sold domestic supplies to the amount of £15,000,000. The Rochdale plan of co-operation is considered to be the best. The Co-operative News, the organ of this movement in England, says:

By examining the leading features of this plan, it will be seen to be as simple as it is efficacious. Many of the societies, now the most flourishing, commenced their business operations with less than \$200. Everything is purchased and sold for cash. Those who have tried the credit system have all failed. The goods are sold at the ordinary price demanded by the regular dealers, no more, no less; but great care is taken to exclude all adulterated articles. To prevent fraud, chemists are employed by some of the associations, and should any of the committees of management suspect an article to be impure, a sample is immediately forwarded for analysis, and the goods are not sold until a report has been received. Thus, goods sold in co-operative stores have a just reputation for purity. It is cheaper to pay a fair price for a pure article than a lower price for an adulterated one.

It is believed that co-operative industry will soon control the whole productive and distributive business of the country. There are tens of thousands of people in England, who, up to the time they joined the co-operative societies, had never saved a penny, who have now considerable sums accumulated by this means. The accumulation is effected by a sort of double-compound interest. The average interest is said to be as high as 25 per cent. on the whole share and loan capital.

The following is taken from the price-list of the Bold street "Household stores" in Liverpool:

*Statement of the prices of some of the articles of household use, from the price-list of the Bold street co-operative stores, Liverpool, 1873.*

Australian meat, without bone:		
Beef, in packages, per pound	\$0 14 to	\$0 15
Beef, corned, in packages, per pound	15½ to	17
Beef, spiced, in packages, per pound	15½ to	17
Mutton, per pound	13 to	14
Kangaroo venison, in packages, per pound		20
Texas beef, roasts, per pound	13 to	15
Potted game, per tin		20
Salmon, per tin		20
Lobster, per tin		20
Anchovy paste, per tin		28
Ham and chicken patés, in tins, per dozen	4	68
Veal and ham patés, in tins, per dozen	3	72
Liebig's extracts of meats, per pound		26
Essence of beef, in jars		12
Tea, fine Souchong, per pound		54
The society's mixture of finest teas, per pound		60
Coffee:		
Ceylon, per pound		31
Finest full-flavored Mocha, per pound		36
Essence of, per dozen	2	28
Chocolate, per pound		32
Cocoa, per pound		20
Sugar:		
Demerara, raw		05
Crushed	06 to	07
Crystals		07
Fruits:		
Currants, Zante		06
Raisins, Valentias		09
Raisins, Sultanas		13
Raisins, Muscatels		14
Dates, Tafilat		09
Prunes, French		07
Almonds, Valentia		24
Preserved oranges	1	44
Lime-juice, per dozen quarts	2	52
American tinned fruits—		
Peaches, one-pound tins		21
Pine-apples, one-pound tins		22
Tomatoes, two-pound tins		23
Turkey figs, per pound		10
Olives, French, one-half pints, per dozen	2	04
Olives, Spanish, one-half pints, per dozen	2	16
Capers, pints	3	12
Arrowroot, one-pound tins		16
Corn-starch, per pound		11
Sago and tapioca, per pound		05
Sago and tapioca, pearl, per pound		08
Sago and tapioca, Rio, per pound		15
Macaroni and vermicelli, per pound		13
Rice:		
Patna, two-pound packages		05
Carolina, two-pound packages		07
Soap:		
Mottled		05½
Pale wax		08
Fine white		14
Candles:		
Stearine		20
Paraffine		24
Spermaceti, best		46
Soda, 14 pounds		24
Starch, per pound		10

## Spices:

Jamaica ginger, per pound .....	\$0 24
Cloves, per pound .....	24
Mace, per ounce .....	06
Nutmegs, per ounce .....	06
Pepper, black, per ounce .....	16
Pepper, white, per ounce .....	32
Pepper, Cayenne, per ounce .....	40
Pimento, per ounce .....	12
Vinegar, distilled, per quart .....	16

## THE MANCHESTER AND SALFORD CO-OPERATIVE SOCIETY.

Having visited the shops and offices of the above society in Manchester, and made inquiries of the officers in regard to its operations and success, the author believes that a few items of information in regard to the objects and management of an association which has not only been productive of material but of moral benefit to its members, will prove interesting. The secretary said that the savings of the members encouraged them in habits of thrift, and that they were not so much given to spend money in drink as is usual with other working-men.

This society was established to purchase food, firing, clothing, and other necessities at wholesale prices, or to manufacture the same and retail them; also to purchase, erect, mortgage, sell, and convey, or to hold land and buildings, and to carry on the labor, trade, or handicraft of builders.

The rules of the society declare that the capital of the same shall be raised in shares of one pound each, one of which shall be transferable, and the remainder withdrawable. Each member shall hold at least one share, and not more than two hundred. Any member may pay the whole or any part thereof in advance, but not less than tenpence per month, or two shillings and sixpence per quarter per share, and, on default, shall be fined threepence per quarter, unless the default is shown to have arisen from sickness, distress, or want of employment, or any other reason satisfactory to the committee of management; in which case a written statement of the cause of the default shall be sent to the secretary at the time at which such payments ought to be made, otherwise the fine shall be enforced.

It is further provided that each member shall receive quarterly out of the surplus receipts of the society, after providing for the expenses thereof, in each quarter, interest not exceeding 5 per cent. per annum upon every paid-up share standing to his account in the books of the society; but the committee shall at any time have power, with the sanction of an ordinary general meeting, to alter the rate of interest upon shares.

Also, that the net proceeds of all business carried on by the society, after paying for the expenses of management, interest on loans, the proper reduction in value of fixed stock, and the interest upon the subscribed capital, shall from time to time be applied by direction of the ordinary quarterly meetings, either to increase the capital or business of the society, to the formation of a reserve fund, or to any provident purpose authorized by the laws in force in respect to friendly societies, and the remainder (less £2 10s. of every £100 clear profit to be set apart for instruction and recreation) shall be divided among the members of the society in proportion to the amount of their purchases at the stores during the quarter.

The dividend for the last quarter was 1s. 6d. on the £1 to members and 10d. to non-members. There is a library with reading-room for members, and a public room for meetings of the society, and for the weekly meetings of the 14 directors, who receive 1s. per week for such service.

The sales are at the prices charged for the same qualities at other shops. The following were noted:

Good American cheese, 8 cents per pound, (very much used, and said to be frequently better than English at the same price.) Very good tea, 2s. 8d.; the best at 3s.

HALIFAX.—The forty-eighth semi-annual report of the Co-operative Society at Halifax, which has just been received, gives its operations

up to December 31, 1874, from which the following information is obtained :

The society, which has twenty-three branches, does a business of nearly £280,000 per annum, making a net profit of nearly £30,000 per annum, allowing a dividend to its members aggregating nearly £500 per week. It has an extensive library, and issues to its readers about 500 books per week. The reading-room is supplied with 12 daily papers, 22 weeklies, and 12 quarterly and monthly magazines. The total expenses amount to 1s. 1d. per £ of sales.

Of a similar society at Edgeworth, near Bolton, the sixtieth quarterly balance-sheet for March 31, 1875, shows a business in grocery and drapery of £198 per week. Stocks are turned over in twenty-six days. They have a small savings-bank and reserve fund, which amounts to 8d. per £ of share capital.

#### DIET OF WORKMEN—FAMILY EXPENDITURES.

The following statements of weekly expenditures of the families of some laboring men in Great Britain indicate, to some extent, the kind of food most in use. It will be observed that meat of all kinds, which forms so large a proportion of the cost of food in the United States, constitutes, on an average, less than one-fifth, (19.6 per cent.,) while in Manchester and Huddersfield it is but little over 10 and 14 per cent., respectively.

In conversations with workingmen in various manufacturing towns, the author made inquiries in regard to their food and mode of living, and the following, selected from his note-book, are specimens of replies from a number of workmen :

**MANCHESTER.**—Most workingmen have bread and bacon, or butter, with tea or coffee for breakfast. Fresh meat of some kind or bacon and bread or vegetables for dinner. Supper is light, consisting chiefly of bread. Many, though desiring meat,\* cannot afford much of it when it costs 10d. or 1s. per pound for steaks.

**HALIFAX.**—For breakfast, tea, bread and butter, or bacon, (bacon supplies the place of butter.) For dinner, a chop, with bread or potatoes ; sometimes a pudding. For supper, bread with tea.

**BIRMINGHAM.**—For breakfast, bread with bacon, and tea. For dinner, usually bacon with bread or vegetables, fresh meats being high. Vegetables are but little used by workingmen, being high in price. Cheese is much used, especially American.

#### EXPENDITURES OF WORKMEN'S FAMILIES.

A circular, requesting statements of the weekly expenditures by the families of laboring men for provisions, house rent, clothing, and other necessities of life, was to but a limited extent responded to in Great Britain. While all wage-laborers know the amount of their weekly receipts, and are, unfortunately, aware of the fact that usually the whole is expended, yet they keep no account of how much goes for bread, or meat, or the other articles named in the following statements. The few which have been obtained are here presented :

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\* In relation to this subject an English writer says : " We know, indeed, that animal food is productive of strength ; just as the London beef-fed bricklayer lays 1,000 bricks a day, while his Dorsetshire fellow-workman, on half the wages, does only one-fourth as much work."

Table showing the average weekly expenditures of laborers' families in the manufacturing towns of Birmingham, Bradford, Huddersfield, Manchester, and Sheffield, England, with their weekly earnings, in 1872.

Articles of expenditure.	Birmingham.	Bradford.	Huddersfield.	Manchester.	Sheffield.
	2 adults and 5 children.	2 adults and 3 children.	2 adults and 2 children.	2 adults and 5 children.	2 adults and 2 children.
Flour and bread .....	\$1 02	\$1 02	\$0 98	\$1 34	\$0 84
Meats, fresh and salt .....	1 30	1 20	84	80	1 03
Lard .....	14	18	60	10	6
Butter .....	25	48	60	16	36
Cheese .....	10	20	60	-----	10
Sugar and molasses .....	28	50	58	52	30
Milk .....	27	30	14	36	24
Coffee .....	7	12	-----	12	8
Tea .....	18	18	20	18	24
Fish, fresh and salt .....	-----	-----	-----	18	12
Soap, starch, salt, pepper, vinegar, &c. ....	16	24	36	16	24
Eggs .....	12	12	6	12	4
Potatoes and other vegetables .....	44	24	36	24	36
Fruits, green and dried .....	6	-----	16	8	6
Fuel .....	33	28	32	60	32
Oil or other light .....	11	8	9	12	8
Other articles .....	10	28	12	20	24
Spirits, beer, and tobacco, if any .....	-----	48	-----	36	60
House-rent .....	1 30	1 08	88	1 08	84
For educational, religious, and benevolent objects .....	54	24	36	36	36
Total weekly expenses .....	7 37	7 22	7 15	6 88	7 41
Total for 52 weeks .....	390 64	375 44	371 80	357 76	385 32
Clothing per year .....	45 00	120 00	25 00	25 00	48 40
Taxes per year .....	3 15	-----	10 00	-----	7 28
Total yearly expenses .....	438 79	495 44	406 80	382 76	440 96
Weekly earnings of laborers ..	8 37	*14 20	7 20	7 96	-----
Yearly earnings, estimating 52 weeks .....	435 94	530 40	374 40	413 92	-----

\* Earnings of family.

#### WEEKLY EXPENDITURES.

Table showing the average weekly expenditures of laborers' families in the manufacturing towns of Leith and Dundee, Scotland, and Cardiff and Cronebrar, Wales, with their weekly earnings, in 1872.

Articles of expenditure.	Leith.	Dundee.	Cardiff.	Cronebrar.	General average in Great Britain.
	2 adults and 2 children.	2 adults and 5 children.	2 adults and 5 children.	2 adults and 6 children.	
Flour and bread .....	\$0 96	\$2 20	\$1 21	\$1 21	\$1 234
Meats, fresh, corned, salted, &c. ....	1 21	1 50	1 08	1 45	1 234
Lard .....	-----	16	10	10	184
Butter .....	36	72	42	56	434
Cheese .....	-----	28	39	36	28
Sugar and molasses .....	24	50	36	40	404
Milk .....	36	16	14	14	234
Coffee .....	18	8	16	52	164
Tea .....	24	20	72	40	224
Fish, fresh and salt .....	-----	24	24	6	164
Soap, starch, salt, pepper, vinegar, &c. ....	14	16	32	15	214
Eggs .....	12	36	24	12	144
Potatoes and other vegetables .....	48	64	36	48	40
Fruits, green and dried .....	-----	12	-----	8	24
Fuel .....	36	36	48	36	36
Oil or other light .....	12	8	12	12	104
Other articles .....	24	24	-----	6	184
Spirits, beer, and tobacco, if any .....	24	24	48	60	43

Table showing the average weekly expenditures of laborers' families, &amp;c.—Continued.

Articles of expenditure.	Leith.	Dundee.	Cardiff.	Cronebrar.	General average in Great Britain.
	2 adults and 2 children.	2 adults and 5 children.	2 adults and 5 children.	2 adults and 6 children.	
House-rent .....	\$0 72	\$0 80	\$1 45	\$1 21	\$1 03½
For educational, religious, and benevolent objects .....	12	24	24	24	30
Total weekly expenses .....	6 09	9 38	8 44	8 62	7 62
Total for 52 weeks .....	316 68	487 76	438 88	448 24	396 24
Clothing per year .....	38 72	72 60	.....	24 20	31 12½
Taxes per year .....	3 36	7 24	.....	.....	6 20
Total yearly expenses .....	358 76	567 60	438 88	472 44	433 56
Weekly earnings of laborers ..	7 26	*14 00	8 64	8 47	9 21
Yearly earnings, estimating 52 weeks .....	377 52	728 00	449 28	440 44	478 92

\* Earnings of family.

### III.—CONDITION OF THE WORKING-CLASSES OF GREAT BRITAIN.

Having presented in the foregoing pages the earnings of farm-laborers and of work-people employed in the mines, mills, factories, and other industrial establishments of the United Kingdom; having stated the cost of house-rent, and of provisions, and other articles of prime necessity, it is now proposed to consider the condition of the working-classes of that country.

The classes whose condition is to form the subject of investigation are chiefly those engaged in factory, mechanical, and other skilled industries, and only to a limited extent the farm-laborers of England. Before entering upon a more extended discussion of the subject in its material and moral aspects, the condition of the latter class will be considered, and as the author was unable, when in England, to make such a personal investigation as would command full confidence, he submits data contributed by others who possessed favorable opportunities for acquiring accurate knowledge. It is proper to state, however, that the opinions expressed in the following paper, and in others inserted elsewhere, are those of their respective writers, which opinions are not necessarily concurred in by the author of this report.

From an article already referred to, "On the condition of the working-classes of England," by Mr. J. S. Stanley James, the following portion only is inserted in this place:

#### THE AGRICULTURAL LABORERS OF ENGLAND.

The social position of Gurth, who, with the badge of serfdom, a brass collar round his neck, tended the swine of Cedric the Saxon, was certainly strongly defined by law and custom. Still, Gurth had certain rights, and Cedric acknowledged obligations to his serf. In this age of "contract," it is certain that the emancipated farm-laborer of England has, during the last half century, in a material point of view, been less prosperous than his Saxon forefathers. In writing this, let it be clearly understood that the general condition of the people is spoken of. In many places the lot of the farm-laborer has been palliated by charitable schemes of clergy, or landlord, or squire; but the cause of this charity is, that the laborers have yet been considered as sort of serfs, whom, however, their betters were not bound to protect, but treated them kindly or



harshly, as the case might be. England boasts of its wealth and prosperity. The riches of England have increased yearly, but during the present century the condition of the farm-laborers has yearly become more miserable. During the eighteenth century, judging from a material point of view, an agricultural laborer was not unprosperous. In that time the farmers of England made large profits, and great quantities of wheat were exported. Then came the great wars; afterward the passing of the corn-laws. Year by year, too, the accumulation of real estate increased. The small proprietors, men who owned and farmed their own land, became less and less. The number of land-owners became fewer, but the number of laborers for hire greatly multiplied. Three great causes may be assigned for the present miserable condition of the English farm-laborer: the English land-system; the system of poor-law relief; and the great local increase of population.

Until the land-laws and the tenure on which land is rented in England are altered, the condition of the farm-laborer can never be materially benefited. If they are not much better than serfs, their employers, the tenant-farmers, are but vassals of the owners of the soil. The majority of the farms in England are only let on yearly terms, renewable from year to year. The same family may have lived on one farm for generations, paying, out of the reward of their labor, and the labor they have wrung from their hinds, exorbitant rents to the owners of the land. During these years they have not been allowed to carry a gun, to throw a fish-line, or to snare a rabbit on their farms without the permission of their landlords. They have voted at elections for the nominee of their landlord; they have supplied recruits for the "yeomanry" troop raised on the estate. A day comes, perchance, when a descendant of such ancestors, more intelligent or self-willed, refuses to be led by the nose by the steward or bailiff. He has an opinion of his own, and at the county election votes against "my lord's" or "the squire's" candidate. Next rent-day comes, and he whose ancestors have, perhaps, erected every building on the farm, have converted barren wastes into fertile fields, and have paid their landlord a heavy rent for that privilege—why, this ridiculous fellow, who dared to have a will of his own, is turned out of the home of his fathers, to seek another as he may.

And here I wish it to be clearly understood that I keep aloof from the political aspect of the question. Whig or tory, liberal or conservative, the great land-owners have always had the temptation and the power to so govern their tenants, and, in cases where the landlord himself would be impartial, his subordinates, the agent, steward, or family lawyer, take care to use on their own behalf the power delegated to them. Kept in such a state of vassalage, it is no wonder that, in their turn, the farmers of England have screwed down and tyrannized over their laborers.

In the old time the value of the land itself was nothing; what it would produce was everything. Now the land itself is valued most, and its produce least. The rents paid by the farmers of England are stated to be only from one to three per cent. on the estimated value of the land, and many of them, after keeping their laborers on starvation wages, find it hard work to pay that rent. It is notorious that nowadays farming in England is far less remunerative than any branch of trade or commerce. A young man fairly educated and a thorough farmer may invest a certain capital on his farm; he may devote time and careful attention to his work; he may pay the lowest rate of wages. In ten years' time he will find himself a far poorer man than his brother, who may have invested the same capital and attention in some business or trade. In too many cases an English farmer finds at the end of ten or twenty years that he has sunk all his capital, and has received no return for it except the maintenance of himself and family. Remember, too, that in such case the laborers have been ground down, as I shall hereafter show. What is the true and logical conclusion to draw? Humboldt says that agriculture is the only true source of wealth. A nation which cannot feed itself has, after all, however rich in other respects, a weak point. In England we are told that farmers, who only pay the landlord from two to three per cent. on the value of the land, pay their laborers wages which only keep them on the very margin of existence, and yet farming is an unprofitable occupation. The real truth is, that nearly every farm in England is greatly overrented; that the estimated value of land is fictitious, which fictitious value is kept up by several causes: first, the limited area of Great Britain; second, the great demand for land caused by the absorption of small holdings into large estates. There seems to be an unwritten compact among the land-owners of England to maintain their landed estates and add thereto by every means in their power. Year by year the land-owners of England get fewer. Even as Ahab coveted Naboth's vineyard, so does a large proprietor eye a small holding which may be adjacent to his estate, and the accumulation of land into the hands of a few goes on yearly. It is true that, when any very large property comes into the market, it is occasionally purchased by some rich merchant, contractor, or railroad man; but these, wise after their generation, withdraw their money from investments paying 7 to 10 per cent., to buy land which they can let at only 1 or 2 per cent., for the purpose of being admitted to the class of landed proprietors, who, directly or indirectly, both politically and socially, in senate, court, and camp, rule England.

So, in fact, low wages are, to a certain extent, the result of high rents. In proportion to what the soil produces, the land-owner takes far too large a share, and the laborer far too small a share. The farmer, the middleman, has great cause of complaint, but he is at least well supplied with the necessities and comforts of life.

The poor-laws of England are a model of incompetency. According to the system of parochial and non-parochial districts, and the complication of local authorities, the poor are only entitled to relief within the immediate district in which they are born. As the wage of a farm-laborer has always been kept down to the point of bare subsistence for himself and his family, the laying by of any fund for his support when out of work, or in old age, being impossible, he is then compelled to apply for relief. In consequence of these laws, laborers remain all their lives in a district where the labor-market is overstocked and wages low; hereditary paupers, they improvidently marry, and bequeath that heritage to their children. The poor-laws of England are, in fact, a puzzle to all, and no one can properly interpret them. Mr. Edward Jenkins, the author, who is also a lawyer of no mean repute, says, respecting one of the codes, that it is "unrivaled by the most malignant ingenuity of former or contemporary nations; a code wherein, by gradual accretion, has been framed a system of relief to poverty and distress so impolitic, so unprincipled, that none but the driest, mustiest, most petrified parish official could be expected to lift up his voice to defend it; so complicated, that no man under heaven knows its length, or breadth, or height, or depth; yet it stands to this hour a monument of English stolidity—a marvel of lazy or ignorant statesmanship."

The third great cause of the miserable condition of the English farm-laborers arises in a great measure out of the second. The operation of the poor-laws has prevented the migration of this class of labor to other parts of England, where it would be better paid. Labor in England is unequally distributed. The farm-labor class is renowned for its superfecundity; these, the very poor, are blessed (†) with more than their share of children. This excess of population over food, of labor over capital, is, in the absence of a check, such as war, pestilence, famine, or emigration, an evil impossible to be mitigated—an irrevocable law of nature. In England, the effects of this evil among the farm-labor class is plainly visible; yearly the population is increasing, each unit reducing by his competition the reward of his own labor and that of his fellows.

An English village is far more pleasing to the eye than a manufacturing town. An English cottage—the outside, at least—makes a better picture than a tenement-house. A great deal has been written about "Merry England," but the truth is that England is not merry, and her laborers have indeed little cause to be so. The cottages in which they live, which are such a pleasant adjunct to the landscape, are, in too many instances, hovels, in which the employers would not stable their horses; hovels, without ventilation, drainage, or the surroundings necessary for ordinary decency; hovels, which have bred a race of men who, from want of domestic comfort, spend every spare hour in the pot-house, and who have nothing to look forward to but to be buried in a pauper's grave; hovels, which have bred a race of women whose maidenly modesty vanished unborn in consequence of the scenes they were obliged to witness through the want of proper sleeping-accommodation. No matter what wages the men may obtain, their cottage-accommodation will keep them depraved and miserable. This want of decent cottages throughout England arises in a great measure from the law of primogeniture and entail. The land-owner is only a tenant for life; he may, perchance, like to add to his estate and power by purchase, but in too many cases he will not spend one penny to build decent cottages or to improve those already on his estate, but will screw down his tenants, endeavoring by every means to save money for his younger children. Of course, in many parts of England, there are decent cottages, built by charitable landlords; but this is the exception, not the rule, and even then their benevolence halts. I have in my mind's eye now a model village on the estate of a great nobleman, but he will allow no more cottages to be built, and those at present erected are hardly sufficient for half the laborers employed on his estate; they, in consequence, having to walk miles to and from their work. But then the pastoral and select character of the model village is maintained.

In 1871 the average wages of English farm-laborers were twelve shillings per week. In the southern parts of England the wages were only eight or nine shillings; in the north, about fifteen; but the average may be taken as above. On such pay it was impossible for a married man to provide proper food for himself and family; meat was a rarity, to be tasted once or twice a year; a little bacon might, perhaps, be indulged in once a week; for the rest of the time dry bread was the chief fare. Such food, and the miserable habitations I have described, have naturally impaired the efficiency, and another century of such conditions would cause a woful physical degeneracy of the laborer. But, in spite of all drawbacks, the English farm-laborer is the most efficient, in his line, in the world, and he is comparatively by far the worst paid. The English railroad "navvy," a class sprung into existence during the last twenty-five years, recruited principally from the hardiest of the farm-laborers, is a being who eats and drinks much and exacts high wages, but, according to the testimony of the late Mr.

Thomas Brassey, member of Parliament, who during his numerous railway contracts had tried laborers of all nationalities, he is the cheapest laborer in the world. The finest men in the British army are also recruited from the farm-laborers. Bent by toil and exposure and suffering from the want of proper nourishment, the farm-laborer plods through the fields of England, but he only wants proper conditions to become one of the finest physical types and best workers in the world. With such homes as they have, it is not to be wondered that laborers spend whatever little money they can in the village beer-house. Their lives are unlovely; there is no silver lining to the cloud hanging over them. What wonder that they seek their only pleasure in the sensual exaltation of strong drink! Yet the drunkenness among farm-laborers is very slight; the poor fellows cannot, if they would, afford that luxury. Viewed in every relation of his life, the portion of the farm-laborer has been one of toil, poverty, and hard living in a degree to which the other working-classes of England have long been strangers.

But the agricultural laborer has at last taken the matter into his own hands. On a dark, rainy night in February, 1872, Joseph Arch first stood up under the chestnut-tree at Wellesbourne, and laid the foundation of that great movement which has since spread over all England. That is not three years ago, yet Joseph Arch at the present moment has undoubtedly more personal power than any other man in England. His record is known wherever the English language is spoken. His work has already brought forth good fruit; the average rates of farm-wages throughout England have since risen, and the hours of labor have been reduced. In the northern counties of England 18s. a week is now paid for farm-labor; in the midland districts, 16s.; and in the southern, 14s. and 12s. There are still parts of England, however, in which men are paid less than the latter sum. But Mr. Arch has experienced the greatest opposition and abuse in consequence of his labors on behalf of the class from which he has risen.\*

John Walter, esq., a member of the British Parliament, and editor of the London Times, in an address which he delivered at a meeting in Berkshire, dwelt upon the condition of the agricultural laborer, and declared that, in spite of all reports to the contrary, it was better than it had been heretofore. He showed by statistics that while the price of food is only a very little higher than it was at the close of the last century, wages are two or three times as much as then. Nevertheless, the wages now paid are very small, and the average laborer earns only thirteen, or fifteen shillings a week, while the combined earnings of a man and his wife and family do not amount to more than twenty shillings a week.

And a judicious writer of our own country, commenting on the past and present condition of agricultural laborers in England, remarks that the results of the labors of Mr. Arch and his coadjutors are already manifest in a decided rise of the scale of remuneration of English farm-

\* Mr. Arch has directed his attention toward emigration, and recently visited Canada to ascertain the extent of the demand for labor there, and see what encouragement would be given him by the Canadian authorities. These have held out great pecuniary inducements, and now advance nearly all the passage-money of farm-laborers from England. New Zealand and Australia are also bidding for this valuable labor, and laborers are now taken to those colonies free. The New Zealand government lately voted two million pounds sterling for the purpose of encouraging emigration from England. It seems to me a pity that the United States Government or the State authorities do not make some attempt to obtain this valuable contingent of labor. The exodus has begun, and in ten years' time England will be drained of her most valuable laborers. Mr. Arch proposes returning to America and going through the States this year, and, as far as he is concerned, I am sure that he will be willing and will advise that every English laborer should go to America. But when the New Zealand, Queensland, and Canadian governments step in and offer to pay the passage of farm-laborers and their families to the respective colonies named, it is little wonder that the advocates of emigration to the States find themselves fighting an unequal battle. However truly the American may point out the glories of his country, the present advantages, and brilliant future waiting for the laborer, still, when the agent of New Zealand or Canada points to the free passage, the latter inducement is sure to prevail. It is hoped that when Mr. Arch visits America some arrangements may be made, either by State authority or the co-operation of private individuals, by which the passage-money from England may be advanced to laborers of this class.

labor, and in the prospect of a permanent elevation in the condition of the laborer:

Five years ago the existence of a National Union of Farm-Laborers would have been thought a perfectly incredible thing. Yet, as the result of less than two years' agitation, that union possesses 33 districts, 900 branches, and 100,000 members.

A majority of the agricultural laborers of England had, for years, to find food and clothing for themselves and their families on the average wages of nine shillings a week. To a man so situated, meat was an unheard-of luxury, and an occasional swinish debauch formed the solitary gleam of what he called the pleasures of existence. Education for his children was out of the question, because, even had schools been provided, he had neither the money to buy clothes in which his children could attend school, nor was he able to spare the pittance which they began to earn at an early age by working in the fields.

A few weeks ago 200 laborers in the eastern counties of England, whose wages had last year been advanced from twelve to thirteen shillings a week, demanded a fresh advance to fourteen shillings. The farmers, who, during the last few years, have combined too, becoming alarmed, locked out some 4,000 men on the simple issue of what they called resistance to "union dictation."

The National Union is able to pay \$8,000 a week toward the support of the men who are locked out and who fail to get employment in other quarters. It will probably be able to do so as long as the farmers can afford to hold out. Statistics show, moreover, that during the last ten years the number of agricultural laborers has decreased in England. This is partly due to their absorption into the working-classes of manufacturing towns, and in a less degree to emigration. Both influences are likely to be felt in increased force during the present decade, and thus, on the mere question of balance between supply and demand, the ultimate triumph must rest with the laborers.

The present movement will probably produce a more scientific system of culture in England, and a more judicious employment of labor than heretofore. In this way, also, it will indirectly raise the industrial status of the laborer.

The New York Journal of Commerce states that—

The British agriculturists, unlike the mechanical and mining trades, which make the most agitation, have real grievances to complain of, and they, certainly as much as the workingmen of that description, need the representation in Parliament for which the latter are scheming and contriving, not, indeed, without claims that could not in a democratic country be denied.

Mr. William Morris, editor of the Swindon Advertiser, in addressing a meeting of agricultural laborers in the west of England, after his return from America, uses this language:

England wanted workers, not paupers. The wage paid the agricultural laborer made him a pauper. In Swindon they had one pauper to every forty-three of the population. In Bishopstone, ten miles off, but in the same Poor-Law Union, they had one pauper to every ten of the population. Bishopstone was a purely agricultural village, and the wage paid there made one-tenth of the inhabitants paupers, living upon the rates which the men of New Swindon paid. At Swindon, the better wage paid reduced pauperism down to one in forty-three of the population. But the Swindon ratepayer had not only to keep his own poor, but he had to help to keep the poor of Bishopstone also, and it was therefore his bounden duty to see that the pauperism of Bishopstone was not created by a vile and vicious system of paying labor. With the private relations between master and man they had no business whatever, but when a master paid a man an insufficient wage, and sent him on to the public rates for such additional assistance as was necessary to enable him to live, he made his system of paying wage a public question, and one which all who contributed to the rates were justified in discussing. Mr. Morris having made reference to Canada and America, said he did not intend at present calling any meeting specially to refer to these countries, but he would be at any time ready and willing to accept the invitation of men wishing to hear what he had to say about the great West, to address meetings called by them.

At a meeting of the Shrivensham branch of the National Union of Agricultural Laborers, Mr. Morris addressed the meeting:

His recent trip across the Atlantic had proved to him most clearly that if they had any repetition of starvation cases, it would be the laborers' own fault. The great West contained vast tracts of the most bountiful land, lying in sheer waste through want of hands to till it. This land, the richest in the world, might be had by farm-laborers of England on terms they might easily comply with, the chief one being that they would bring it into cultivation and make it productive. While the laborer in possession of

this land was raising himself into the position of a landed proprietor, the State would care for his children, and give them a thorough, good education free of cost, and thus fit them for any position in life. He, Mr. Morris, was more than ever satisfied that his course in connection with this movement had been the right one, and, let the consequences be what they might to him as an individual, he should go with the men to the end. In England the movement had benefitted the men without injuring the master, for what the employer spent in extra wage he would save in rates, and he would have the advantage of men working for him in the place of paupers. The men knew full well what the union had done for them. As a body they had accomplished more in a year than as individuals they could have done in a life-time, and, in addition to more and better wage, they had already won for themselves a spirit of independence and manly feeling; they were beginning to estimate themselves at more than a pauper's value, and it would not be long before their new position would be recognized throughout England as being infinitely better than that in which they had previously lingered.

Mr. Morris, after his return from a visit to the United States, wrote to the author as follows:

SWINDON, *October 24, 1874.*

You ask for some details as to how our poor live. I will give you a case that came under my notice the other day.

An apparently strong, robust man applied to the poor-law guardians for relief, consequent upon some temporary illness in his family. His own age was thirty-three years and his wife's age thirty years.

He had five children, aged respectively eight, six, four, three years, and three months, in all seven souls. The man, when making full time, was receiving 12s. a week wages. Out of this sum he had to pay 1s. 6d. a week for rent of his cottage, leaving 10s. 6d. to find food and clothing for seven persons, two of them being adults in the very prime of life. As you will see, allowing three meals a day at a cost of one penny a meal, the full wages, without the deduction for rent, would have been insufficient by 3d. a week; yet a penny would not buy more than 8 ounces of bread at the present cost, or more than about the third of an ounce of uncooked meat. I was holding a meeting in the village in which this man lives a few evenings afterward, and I referred publicly to his case. I asked if he had truly represented his case, and the answer was yes: I was also assured that, until the present movement among the laborers, more than 11s. a week had never been paid to such men, the general rate being 10s. Men in such a state as this cannot tell how they live. It is a mystery to them as well as to every one else. It is a well-ascertained fact that, in districts where these wretched wages are paid, the cost of tillage of the land per acre is much higher than in districts where better wages are paid; yet we English people are so wedded to old notions that men kick most vigorously against all change. In the same district where these prices obtain there is not an agricultural laborer to be found who, for an ordinary week's work, receives more than 12s. a week wages. Until very recently, 9s. and 10s. was the rate paid. Can it be wondered at, then, that in the year 1868 our pauperism cost us £10,439,000? Our agricultural poor have never been paid a living wage, and we have had to supplement wages out of poor's-rate. This is proved most clearly by the fact that the recent rise in wages from 9s. and 10s. to 11s. and 12s. per week has decreased our pauperism, between the years 1870 and 1873, no less than 18½ per cent. We may well suppose that the minimum cost of feeding human beings has been arrived at in our union work-houses. In my paper for October 13 you will see a report of a case where a man is charged with leaving his wife and family chargeable to the Barton Union. The master of the house, in supporting the case, swears that the cost of five persons in the work-house is £1 5s. per week, or more than double what an ordinary laborer would have to maintain his family with from his wages, when out of the house and in full work. In another number of my paper, that for October 27, you will find the case reported of a man twenty-one years of age, who was a hired servant at 9s. a week. This man was to have £5 over at Michaelmas. You ought to understand what this means. It is a common practice in some districts, when hiring a servant by the year, to give so much per week, with so much over at the end of the term. But the payment of this bonus by the master cannot be enforced by the man, and for this reason—it is always *promised* conditionally that the master is perfectly satisfied with the man's work throughout the whole of the year, as well as covering all possible claim for over-time in the harvest and other busy seasons. This bonus, in fact, ties a man down to be used by his master in any and every way he may think fit; if a master calls upon such a man to work from 4 or 5 in the morning until 8 or 9 at night, he must comply under pain of forfeiting this over-money. Practically, therefore, his over-money, instead of increasing the man's wage, does no more than meet the extra wear and tear of the man at the busy seasons and at harvest-time. There is oftentimes a great fuss made about the amount laborers earn at piece-work. It should never be forgotten that the piece-work price is based on the day-work standard. The man working piece-work could not live on the day-man's wages. To earn the larger sum,

he must spend a larger sum for more and better food; therefore I always contend that the ordinary weekly wages should be considered exclusively, when reference is made to the amount paid the laborer. In another paragraph in the same paper you will see how a poor, wretched laborer, out of his poor wages, had managed to save up a large sum of money. I suppose that, in all states and conditions of men, such characters will be met with. I much fear there is little or no difference in the class of food this man used, that he might save money, and that used in the ordinary laborer's family, that they may fill their bellies as best they can and live. If you would like to have them, I will look up a number of statements made by the men themselves at meetings over which I have presided, where they have told of their struggles to live. I shall never forget one woman asking permission to speak, and publicly thanking God that her old man, by being put on as milker, and therefore working on the Sunday, was enabled to earn a shilling a week extra; which enabled her to give her children that amount of extra bread to eat.

As to emigration: I believe thousands of our best laborers would gladly leave the country; but how is it possible for them to do so? Now and again they have managed to save a few pounds; but where there is one who has done so there are ninety-nine who are over head and ears in debt to the village shopkeeper.

For twenty-five years past I have read the history of these people in our police-courts and small-debt courts, as well as at the board of guardians' meetings, and nothing would delight me more than to see some well-devised plan for shipping them off to countries where labor is estimated at a better value and wins a more generous reward.

Mr. Morris, on account of a statement published in his paper in relation to a particular case of destitution in his neighborhood, was subjected to a suit at law, for alleged libel affecting the character of an employer, a Mr. Barnes, who felt himself aggrieved by certain allegations therein concerning the low rate of wages paid by him to the different members of a laborer's family; the inference from which was that Mr. Barnes had acted oppressively toward the poor. This case had been brought under the notice of Mr. Morris, as a member of the board of guardians of the poor, and he could not justifiably close his eyes to the actual suffering which the case presented. For this publication, however, the jury awarded to the complainant the sum of £50.

"AGRICULTURAL LABORERS' NATIONAL UNION."

[From the London Examiner.]

The agents of the National have only been at work in a certain county since last Christmas, and the number in union already exceeds two thousand, while several parishes can be found where every adult and able-bodied laborer acts in combination with his fellows. The policy of wholesale discharge has been tried and found wanting. One Berkshire farmer discharged eight of his men at a week's notice for joining the union, and before the following week had expired they were one and all placed in situations where they earned 18s. a week instead of the 11 that had previously formed the total of their wages. The policy of wholesale eviction has shown itself to be equally futile and suicidal. It has been tried at one place, and over forty cottages still remain empty, vainly seeking for fresh tenants. The wages had already been raised a shilling per week; when was it going to stop? Clearly something must be done, and that without delay. It was obvious that the "seeds of mischief" were sown by the words of the agitators. Stop the meetings, and the movement would sustain a severe check. Of course, meetings in the village school-rooms and in the halls of the market-towns had never been permitted, and if only the waste-lands and open spaces could be saved from the demagogue's unhallowed tread, the kindly feeling between the farmers and the laborers might still be preserved.

Such, it would seem, has been the course of their reflections, and the village of Littleworth was first selected for the opening of this new campaign against liberty of speech. Seven laborers were summoned before the Farringdon bench of magistrates, (one of the justices being Viscount Folkestone, of "baron of beef" notoriety,) and mulcted in a penalty and costs for obstructing a footpath, on the evidence of two policemen and a farmer. The ruling, according to the evidence then produced, appears to have been most extraordinary. The "footpath," independently of the roadway, was 26 feet in width, which is surely an unusual allowance for a village lane; but, notwithstanding this, and the evidence distinctly denying the existence of any obstruction, the justices thought fit to decline granting a case for the higher courts. Moreover, the identical spot on which the laborers' meeting was held is the very ground

that has been constantly and habitually used for the past forty years, without let or hindrance, for the holding of Methodist and temperance meetings. This, in itself, proves that the question of obstructing the highway was a mere frivolous subterfuge.

This decision naturally caused great indignation in the neighborhood, and a meeting was summoned on the 20th instant, to be held in the market-place at Farringdon. The market-place was thronged with between three and four thousand laborers from the neighboring villages to listen to the speeches of Mr. Arch and others. The meeting was conducted in the most orderly way, and the laborers, at its conclusion, quietly dispersed to their homes, notwithstanding the great provocation that was offered by the throwing of rotten eggs and stones from the windows of an adjacent house. The police attempted no interference with the throwing of missiles, but doubtless, in accordance with their instructions, they were not idle on the occasion. Shortly after the commencement of the proceedings, they demanded the removal of the wagon that served as a platform, but eventually contented themselves with taking the names of the speakers, with a view to the issue of summonses. In the interests of the Union, and for the preservation of invaluable public rights, it is earnestly to be hoped that the Farringdon bench will proceed with their prosecutions. The fining of Joseph Arch, and the strong probability that he would exercise his option of preferring prison to a fine, for the crime of speaking in a country market-place to our poor country serfs, in a district where their wages only just remove them from starvation, would be worth more to the Union than the cheque of a millionaire. Other meetings have been held in this market-place, and standing-room found for wild-beast shows and exhibitions of cattle. But even suppose that the Farringdon bench should be successful in punishing these speakers, how long will laws last which sanction such outrageous decisions? The country should be very grateful to the National Agricultural Laborers' Union for putting these questions to the test.

#### CONDITION OF FACTORY, MECHANICAL, AND OTHER SKILLED WORKMEN.

Having considered the condition of the agricultural laborer, attention is now directed to an inquiry into the condition of British workmen employed in mines, mills, factories, and at mechanical trades. The habits of the workmen in regard to industry, and if he is unable to perform a full week's work the cause of such inability, and whether it can be removed; the condition of his home, whether comfortable, and, if not, whether the discomfort arises from his improvidence or other fault, or whether it is the fault of his employer, or results from the system or state of society—all these form subjects worthy of careful and impartial investigation.

It is assumed in the outset that the evils above indicated do exist; that the average British workman is not in general industrious, but labors only four or five days per week; that his family lives in discomfort; that the education and training of his children are almost wholly neglected, and that this discomfort and neglect are not necessarily occasioned by insufficient earnings.

If the above statement affords a fair indication of the condition of many of the skilled workmen in Great Britain, especially in the manufacturing and mining districts, the question arises to what cause or causes are these results to be ascribed? A reply to this question involves a discussion of

#### THE DRINKING CUSTOMS OF GREAT BRITAIN.

The chief cause of the evils which afflict the British workmen and their families, it is believed, is the excessive use of spirits and beer. Although this report comprises an inquiry in relation to the wages and condition of the laboring-classes in the United Kingdom, yet, in regard to the drinking habits of society, the investigation may be profitably extended beyond this limit. These habits of the British people are unfortunately not confined to the working and lower nor even to the mid-

dle classes, but pervade all ranks, and extend to both sexes and to nearly all ages.

The fact is not forgotten that this investigation is made by a citizen of a country which, next to Great Britain, is perhaps most noted for its large consumption of intoxicating beverages—a country which expends over \$600,000,000 annually in spirituous, vinous, and malt liquors. A citizen of the United States should, therefore, be conscientiously careful in his statements, when he remembers that in this respect the walls of his national house are composed of brittle material without strength to resist the return missiles which an attack on the glass house of England might provoke.

Although facts which constantly presented themselves to the author during his stay in Great Britain afford evidence to his mind of the extent of the drinking habits of its people, and would, if presented, be sufficiently convincing to candid minds, yet preference is given and greater weight should be attached to the testimony of residents of that country who have had favorable opportunities to ascertain the actual facts, and against whom no imputation of adverse prejudice can be alleged.

The first authority cited is the *London Times*, which in 1872 published the following statement :

**DRINKING CUSTOMS OF ENGLAND.**—The figures published by the Statistical Society showing the amount of intoxicating fluids annually consumed in this country are certainly large. We drank, it appears, last year, in spirits, malt liquors, wine, cider, &c., more than seventy-two million gallons of pure alcohol, at a cost, in round numbers, of £120,000,000. It is calculated that at least half of this money is spent by the working-classes; and as they desire principally strength or quantity in their drink, we shall probably not be wrong in assigning to them very much more than half our entire yearly consumption. There is no more alcohol in a bottle of wine than in half a pint of ardent spirits, and the cost of the one may be a guinea, and of the other ninepence or a shilling. It is clear that if the working-classes have spent their £60,000,000 in a cheaper form of intoxicating drink, they have got much more for their money, and may probably be debited with fifty million gallons out of the entire seventy-two millions of the year. It will be seen, if the figures are compared with those of 1871, that the total amount of the past year is not only very large in itself, but shows a considerable increase on the year before it. We spent in 1871 only £108,000,000 on the same objects, and received for our money, in various forms, somewhat less than sixty-five million gallons of alcohol. The rise is certainly considerable. It has been due, probably, to the increased wages of labor, which have allowed the workingman to indulge himself in more luxuries.

The following, in relation to the same subject, appears in the *Times* of November 6, 1874 :

**DRUNKENNESS IN ENGLAND.**—The number of persons charged before magistrates in England and Wales in 1873 with being drunk, or drunk and disorderly, namely, 182,941, is very nearly double the number so charged in 1863, in which year it was but 94,745. The increase has been chiefly in the last six of the intervening ten years. In 1867 the number was but 100,357; in 1868 it was but 111,465; in 1869, 122,310; in 1870, 131,870; in 1871, 142,343; in 1872, 151,084. In 1873, the first year under the new intoxicating liquors act, instead of the continuance of an increase of 10,000 or 11,000 in a year, the number leaped up to 182,941, an increase of 32,000 over the preceding year. There are no means of distributing the increase among its causes, whether high wages, stricter police supervision, or other causes; but the number is remarkable. It is worth notice also that the increase is more among men than among women. In 1867 the number proceeded against comprised 74,860 men and 25,497 women—three men to one woman, the women being a little above a fourth of the whole number; but in 1873 the numbers were 141,232 men and 41,709 women, the women in 1867 being 400 more than a fourth of the whole number, but in 1873 4,000 less than a fourth of the whole number.

The following extract from *Fraser's Magazine*, February, 1872, illustrates the evils resulting from the drinking habits of the laborer :

**DRINK TRAFFIC IN GREAT BRITAIN.**—The drink-seller in manifold cases knows certainly that the customer is transferring to him money which is not morally his own to



spend. Every married workman employs his wife as his cook and housemaid. In these characters she has a right to wages from him, which must be paid before he has any right to mere indulgence of the palate. When he has children, they too have a prior right; and the mother, during her times of weakness, ought not to be worked. A laborer who neglects wife and children to gratify his appetite for liquor is morally guilty as though spending the money of another.

In proof of the statement heretofore made, that the habit of drinking to excess extends to the middle and upper classes, the testimony of Dr. Anstie is presented. The following appeared in the *Practitioner* for 1872:

We must notice the fact that many girls of the wealthy middle and of the upper classes, especially the former, are of late years taking to consume all kinds of wine, and particularly champagne, to an extent which used never to be permitted. At many modern ball suppers champagne flows like water; and the attentive observer will soon perceive that it is not the men, by any means, who do the larger part of the consumption. These same young ladies who have so freely partaken of champagne over-night will next day at lunch take plenty of bottled beer, or a couple of glasses of sherry. Dinner comes round, and again either champagne or hock or port or sherry is drunk, not less than a couple of glasses being taken. And then the evening very often brings a party of some kind with the inevitable champagne or sherry. *We are speaking of things which we have seen* when we say that many girls who live among rich (especially *nouveaux riches*) and gay society are in the habit, during six months out of the twelve, of taking (in the shape of wine, &c.) a daily average of two, two and a half, or three ounces of absolute alcohol, a quantity which, if expressed in cheap beer, would be equal to six or seven pints.

The general moral is that light wine gives the taste for strong wine, beer for gin. This is fatally experienced in France, in the United States, in Germany, and in England. Our Saturday Reviewer remarkably comments: "Education and intelligence are rather against a woman than otherwise, for they make her believe that she at least is safe while gradually and unawares imbibing the fatal propensity."

In further illustration of the general use of liquors in England, it may be stated, as the result of personal observation, that ladies of the middle classes, when visiting any exhibition, are accustomed to partake of wine with their necessary refreshments.

In the visits of the author to large industrial establishments in England and Scotland wine was frequently offered—a custom which was in vogue in the United States some forty years ago, the retention of which in Great Britain is probably due to the intense conservatism of that country. In one instance, where the works were extensive and several hours occupied in their examination, wine was at several times offered, and surprise was expressed that such *fatiguing exertion* could be undergone without some stimulus.

In various parts of Europe Americans were met at dinner who declined taking wine, but such a refusal on the part of Englishmen or other Europeans was in no instance observed.

In subsequent pages extended articles "On the condition of the working-classes of Great Britain," prepared especially for this report by United States consuls and others, are given in full. Brief extracts from some of these papers, referring to the drinking habits of the people, are presented here.

The United States consul at Manchester says:

The working-classes consume an enormous quantity of intoxicating liquors, principally beer, though very many partake largely of spirits and of the cheaper wines. Intemperance seems to be on the increase, especially among the women, not only of the working-classes, but also of the middle and upper middle classes.

General Fairchild, United States consul at Liverpool, under date of November, 1873, writes:

The increase of drunkenness, and all dissipations which follow idle hours, is alarming.

\* The author may be pardoned for making a personal reference. An English lady, because one of her guests drank no wine at dinner, also declined to taste the beverage; a marked exception to the general custom above indicated, and a rare exhibition of true politeness.

The Westminster Review of January, 1874, says:

Liverpool has the unenviable notoriety of being the most drunken town in the United Kingdom.

Dr. Trench, the able and well-informed medical officer of the health department of Liverpool, remarks:

The working-classes of Liverpool are extremely intemperate, even when compared with similar sections of the community in other large towns of Great Britain.

His able official report for a previous year contains the following on the same subject:

The amount which is spent in drink is astonishing. One or two instances of the worst kind, occurring in the same street, may be cited.

A man earns 27s. regularly, and spends as regularly 21s. in drink; his four children are in rags. In another instance the wages are 30s. a week regularly; the father and mother are both drunken, and three children are half starved, and in rags. In another house is a copper-ore worker, earning 27s. a week, all of which is spent in drink by himself and his wife. The children are in rags and filth, and look idiotic. In the same street there are sober men, earning only 20s. and 23s. a week, who are living in comfort.

The landlord of a small public-house, who had lived for years in the district, and knew intimately the habits of the people, said, "For one man who did not drink, there were fifty who would take their share; they starve their wives and children, and must beg if they want a bit."

Mr. Jenkinson, the consul of the United States at Glasgow, in reference to the increase of intemperance, wrote as follows:

That drunkenness prevails to an alarming extent among the working-class cannot be denied; that it has increased as their wages have been increased is also true. Many have, no doubt, been benefited by such increase of wages; but most, it seems, outspend their extra earnings in extra quantities of whisky.

Dr. Webster, United States consul at Sheffield, thus writes, January 22, 1874:

From inquiry and my own observation, I believe that far the larger part of the loss of time and the reckless waste of money is the result of the drinking habits which prevail so generally. It is painful to see how the weekly wages are squandered by the thousands who throng the drinking places on Saturday, Sunday, (at certain hours,) Monday, and Tuesday, and, indeed, on all the days of the week.

There are in Sheffield 1,400 public houses, licensed places for the sale of beer and spirits. At each of these, at a low estimate, an average amount of £10 is spent weekly, making an aggregate of £14,000 of weekly expenditure for a population of 240,000.

Mr. Consul Jones, of New Castle-upon-Tyne, in his report on the moral and social condition of the working classes, says:

Many of them are very improvident and fond of drink; a feast of food and stimulants in the early part of the week, at the expense of an insufficient supply at the end, is very frequently the case among the sons of toil on the Tyne. Excessive drinking has undoubtedly increased in this district since the short hours and advanced wages have prevailed.

It was said boastingly by English statesmen that *the nation had drunk itself out of the Alabama claims by the increased income from the tax on intoxicating drinks during the past year.*

The following extract from a letter addressed to the author by the right honorable the Earl of Shaftesbury, a nobleman universally regarded as a Christian philanthropist of the highest type, further illustrates this part of the subject:

LONDON, February 12, 1875.

SIR: " \* \* \* There are speeches, pamphlets, and treatises in immense abundance on the evils of intemperance. Even our newspapers are beginning to denounce the sin and call for a remedy. I should weary you by repeating—and, indeed, you must well know them—the numerous and various facts which may be read every day and everywhere. There is very little of all that is said that I should not indorse.

That the filthy, close, depressing, pestilential state of the dwellings in several large

towns, and certainly in the metropolis, is a strong provocation to drink, and specially to drink ardent spirits, is to my mind simply beyond question.

The loss to a country, morally, socially, and financially, by such habits among the people, defies all calculation.

With many thanks for your letter, I am, sir, your obedient servant,  
SHAFTESBURY.

EDWARD YOUNG, Esq.,  
*Chief of United States Bureau of Statistics, Washington, D. C.*

### THE NATIONAL BEVERAGE.

In an editorial, discussing the agitation for the repeal of the tax on malt, a tax which its opponents denounce as one that "robs the poor man of his beer," the London Daily Telegraph of March 6, 1874, makes the following remarks:

We know all that can be said about the "national beverage." There are those who believe that it is the "wine of the country;" that, if we made it cheap and its use universal, the consumption of ardent spirits would decrease, and comparative temperance be really promoted; and that—to quote Sir Robert Peel slightly altered—"the laboring-man would recruit his exhausted strength with abundant and untaxed beer, no longer leavened by a sense of injustice." It is quite possible that some of these brilliant results might be achieved. This belief in the beneficent blessings of the drink is, however, not new. It at one time dictated a legislative measure, that was received with hearty and almost universal applause. The beer-act of 1830 was passed in order to encourage everywhere the erection of beer-houses, as distinct from gin-palaces. It was designed, as its friends said, to "supply a wholesome beverage," or what Lord Brougham, oddly enough, called a "moral species of beverage," distinguished from rum, brandy, whisky, and gin, which, by implication, he accused of immorality. Men of all parties supported the measure, as conducive to the health, the morality, and the sobriety of the laboring-classes, through bringing to their doors a cheap and wholesome drink. But the results bitterly disappointed the expectations of its friends. Sidney Smith wrote: "The new beer bill has begun its operations. Everybody is drunk. Those who are not singing are sprawling. The sovereign people are in a beastly state." We have now given up the policy of multiplying beer-houses, in order to bring back the age of gold. The farmers tell us we did not go far enough, and that the true "Paradise Regained" is to be found in a home-brewing people.

### BREWERIES IN BURTON-ON-TRENT.

Manchester is not more celebrated for its manufacture of cotton, Leeds for its woollens, Birmingham for its hardware, and Sheffield for its steel and cutlery, than is Burton for its ale. Although, in proportion to the vast product, but few men are employed in its manufacture, and therefore a knowledge of the rates of wages is comparatively unimportant, yet in consequence of the vast influence which emanates from this uninteresting town, the author took occasion to visit it, and was shown through the extensive brewery of Messrs. Allsopp & Sons. This is the largest single brewery, and makes 2,000 barrels of ale per day. Bass produces a larger quantity, but has three breweries in operation. The vast extent of the beer-interest in Great Britain may be gathered from the following account of only one establishment in one of the towns devoted to this manufacture:

The town of Burton-on-Trent is almost wholly given up to the manufacture of beer. In fact, the breweries are the town, and the interstices between the breweries simply contain some dwelling-houses. The immense breweries of Bass, Allsopp, Inde, Coope, Worthington, Salt, Nunneley, Evershed, and Robinson are all there, besides others of lesser note. Bass alone has three breweries there, covering altogether a little over 100 acres of ground. Bass used last year 267,000 quarters of malt for brewing purposes. If it be reckoned that an acre grows four quarters of barley, 66,750 acres were occupied in growing the malt which Bass used. Of hops his consumption was 29,000 cwt., which engrossed about 2,000 acres of hop-growing country. In malt-tax and license-duty he paid last year £200,000. The total brew of Bass during the year

amounted to 720,000 barrels, each barrel containing 36 gallons; so that Bass could have served more than half the estimated number of the human race with a glass of beer per head from his brewing of one year. Throughout his Burton premises Bass owns over five miles of private railway, runs five private locomotives, and uses twenty-six steam-engines, with a collective horse-power of 436. He employs in Burton over 2,000 persons, and pays more than £2,000 in weekly wages. He used last year 33,300 tons of coal. He has in use 30,000 butts, 144,000 hogsheads, 113,000 barrels, and 249,000 kilderkins; a stock of casks, in all, in store and scattered over the country, exceeding half a million.

Mr. Bass is now, and was at the time of the visit, a member of Parliament, as are also Mr. Allsopp and some other brewers; but in the House of Commons his name is rarely mentioned. On great financial or educational questions, or on measures for the improvement of the condition of the poor, or for the correction of abuses, he rarely, if ever, speaks; in the efforts now making to improve the condition of dwellings of the working-classes, his voice has not been heard supporting the measures so ably urged by Mr. Cross and others. But if, in the House of Commons, his voice is not heard and his influence not felt in behalf of measures for the amelioration of the condition of the lower classes, the influence of Mr. Bass outside of Parliament is potential. Westminster may be the seat of political and financial influence, but the vast power which molds the character, affects the material and moral condition, and sways the destinies of the great masses of the English people, has its chief seat at Burton-on-Trent. Nor is this influence confined to the British Islands. Throughout Europe and America, and in countries which the traveler rarely visits, the name of Bass is well known. In places where the immortal works of Shakespeare are unread, the products of Bass are familiar; ears which have never heard the classic name of Stratford-upon-Avon, are not unused to Burton-on-Trent.

It was hoped by an inexperienced American, when leaving London—whose placarded houses and walls proclaimed the virtues of the ale or porter of different and rival brewers—that by crossing the Channel he would escape from the ubiquitous Burton brewer, but the first English words that met his eyes as he sat at breakfast at Dieppe were “Bass’ ale.” At the far East this ale was seen not only in the modern but in the renowned ancient capital of Russia,\* and at the great fair at Nijni Novgorod on the far off Volga, as well as in the usual routes of travel in Central Europe; at the West, in the floating palaces which traverse the Atlantic, and in New York, Washington, and throughout the United States, even to the shores of the Pacific, Bass’ ale can be procured.

And it may be doubted whether there is any spot upon the globe, where civilized people dwell which is unsupplied with the malt liquors of Bass, † Allsopp, or other English brewer.

Although the evils resulting from the continued use of strong beer are painfully apparent in Great Britain, yet it does not easily intoxicate. Taken at meals or with bread, forming as it does a chief article of consumption, it is apparently harmless; but its excessive and long-continued use, especially at night and when taken by itself, produces most injurious effects. The beer of Germany, especially of Bavaria, which forms a staple article of consumption, must be much lighter, for in that

\* In 1789 a consignment of twenty half hogsheads of ale, containing 789 gallons, was made by a Burton brewer to Saint Petersburg, and in exchange requested the shipment of pipe and hogshead staves.

† Mr. Bass, like Mr. Guinness, in Dublin, and the late Mr. Vassar of this country, has distributed large sums in benevolence. A church was pointed out to the writer in Burton, costing some £25,000, and another situated elsewhere, which were built at his sole expense. Possibly there is some connection, other than alliteration, between beer and benevolence.

country intoxication is infrequent. Indeed, the consul of the United States at Chemnitz remarked, "Judging from the quantity a native can consume, I apprehend that one will stagger quicker from the weight than the strength of the potion." In England, small or light beer has been in general use for many centuries, and was a common beverage long before the introduction of tea.\*

Indeed it is a little remarkable that while the use of beer does not diminish, that of "the cup which cheers but not inebriates" has greatly increased, until the average consumption, in that country has reached four pounds per capita.†

To those who need or think they need some stimulus, the use of malt liquors is far less injurious than spirits. The intemperance which so generally prevails in Liverpool, Glasgow, London, and Antwerp, where West India rum and other spirits are largely consumed, attests this fact.

#### HOMES OF THE WORKING PEOPLE.

It has been incontestably shown that the chief cause of the evils that afflict working men and their families arises from the excessive use of spirituous and malt liquors. In making a full analysis of this subject it becomes necessary to extend the investigation beyond the secondary and search for the primary cause, of which the cause just stated is merely an effect. If the workman indulges in the excessive use of spirits and beer, which results in decided injury to his family, is he alone responsible? The question is pertinent and demands a candid reply. From a careful consideration of the subject it is evident that the intemperate habits of a great mass of British workmen are due to the drinking customs of the classes above them in the social scale, which the facts already presented, and others which are patent in regard to the almost universal use of intoxicants in the upper ranks of society, sufficiently prove. Until those to whom the working classes look for example feel their responsibility in the premises, so long will the majority expend a portion of their earnings in drink, and suffer their families to remain in poverty, ignorance, and discomfort. The responsibility for this misery should, it is affirmed, be shared by others.

In addition to the drinking customs of society which should justly be charged with a part of the wrong inflicted on the workmen's families, there is another cause for which others are chiefly responsible, viz, the wretched tenements occupied by the working classes. From the initial step in this investigation the author's attention was arrested by observing the miserable apartments in which most of the factory operatives dwell. In Birmingham and Wolverhampton, and in most parts of the "black country," in parts of nearly all the chief manufacturing cities of England and Scotland, the tenements to which the tired laborers return at night, and where they should have comfort and repose, are in many cases unfit for human habitation. In some instances these belong to the corporations owning the mills, mines, or works, and were erected in low grounds destitute of drainage and of proper sanitary regulations. In other places they occupied rooms in poor buildings in the outskirts of town or in the most crowded thoroughfares, redolent of filth and dirt. Confined to two or three rooms, or as in Glasgow to one, or at most

\* Tea was introduced into England before 1657. Beer was used in Germany and Britain in the time of Tacitus.

† In the United States the consumption of tea, which was formerly but one pound per capita, has gradually increased until now it is nearly 1½ pounds; still it is but little over one-third of the average consumption in Great Britain.

to two rooms for a family, comfort, cleanliness, and even decency are impossible.

What wonder, then, when the husband and father, fatigued with his day's toil, returns home, to partake of his frugal evening meal, finding his wife irritable in consequence of hard work, the care of wayward children, and the deprivation of ordinary comforts, that he visits the ale-house where he and his fellow-toilers, similarly circumstanced, drown their cares in the beer-mug and squander their hard earnings which should have been devoted to the comfort of their families!

In the papers already referred to, on the condition of the working classes, which appear on subsequent pages, ample testimony is afforded of the character of the tenements occupied by the poor. The following facts in regard to that subject are first presented.

Mr. Consul Jenkinson, in his report on the condition of the laboring classes of Glasgow, thus writes in regard to the wretched tenements which most of them occupy:

#### HOMES OF THE LABORING CLASSES OF GLASGOW.

The condition of the laboring men of this city cannot be fully understood without a glance at their homes. In this respect, perhaps, more than in any other, is the greatest contrast presented between the British and American mechanic. Home comforts, in the American sense, are but little known to the laboring man in Glasgow, living for the most part in great tenement buildings, where ten or a dozen, sometimes twenty or thirty, families occupy a single tenement; each family possessed of but one, or at most two, ill-ventilated, dreary, dirty rooms. The official statistics upon this subject are startling. The city chamberlain, in his report for 1869, says, "It is quite aside from the subject to complain of single apartments being each occupied by a family, for such has always been the case, and apparently will continue to be the case, much as it is to be regretted. The chief evil arises when a dwelling-house becomes subdivided into single apartments, each entering through its neighbor, in place of each opening only upon a well-ventilated staircase or corridor. Some readers may not be prepared to learn that at the census of 1861 more than 28,000 houses in Glasgow were found to consist of but a single apartment, and above 32,000 to consist of two; so that of the whole 82,000 families comprising the city, upwards of 60,000 were housed in dwellings of one and two apartments each."

For 1870 the estimated numbers were: Families each occupying a single room, 29,884; those occupying only two rooms, 43,403—showing that more than 73,000 of the 97,000 families comprising the city of Glasgow in 1870 were living in one or two rooms each. The mere statement of these facts is sufficient to show that few home comforts fall to the lot of the laboring classes of this city, and if I should add a description of the dirt and desolation prevailing in most all of these homes, making them mere nests of disease and suffering, I would even then have only partially detailed their discomforts. And imagine 8,000 of these families congregated on the space of four blocks, as is the case in this city, and can anything more be done to darken the picture? Such miserable dwellings cannot of course command very high rents, and it is not surprising, therefore, to find, from an official report, that during the year just closed (1872) there were in this city more than 74,000 dwelling houses renting at less than \$50 each. And, as I find on inquiry that dwellings of two rooms rent for from \$40 to \$50 each, it is presumable that all of these 74,000 dwellings, each occupied by a family, were of one or two rooms each.

In a report prepared for these pages by Mr. Consul Webster, "on the condition of the working people of Sheffield," he says:

The mother in many cases being away from home at work, consequently neglects the family. The husband, knowing that there is no comfort for him at home, resorts to the nearest dram-shop for refreshment; the wife, in many cases, doing the same. Hence the sad neglect of the children.

In the matter of their dwellings and furniture, their dress, their sleeping accommodations, and almost everything that goes to make the home, the comfort of the family is seriously abridged. And yet vast numbers who earn good wages, say thirty, forty, and fifty shillings a week, seem to be satisfied with the scantiest supply of the most common absolute necessities of life. In very many cases large families do live in one and two rooms. This would not be true of a majority, but it is too common.

Mr. Consul Branscomb, in his "report on the condition and habits of the working-classes of the Manchester consular district," which appears in full on a subsequent page, thus alludes to the homes of some of the working people:

The houses of those persons who squander so much in drink \* \* are squalid, wretched, and desolate. In many cases families who can unitedly earn, when they all care to work full time, three, four, five, and even six pounds per week, live in filthy and dilapidated old tenements in the back alums, and sometimes huddle together in one or two rooms, without a bit of decent furniture.

Mr. Consul Gould, in his report upon the condition of the working-people, which appears on a subsequent page, says:

In a large proportion of their homes family comfort is totally unknown. The tenements of the laboring-class are but poor apologies for homes, in multitudes of cases their whole furniture not being worth more than a few shillings. Pawnbrokers do a thriving business, and the only part of the week when comforts are introduced is on Saturday evening and Sunday, after the wages of the week come in. Monday usually begins with the poverty and pawning of the previous week, and thus the perpetual round continues. The tenements are generally small and dirty.

The following extract from the *Cambrian News* shows the uncomfortable lodgings of working-people in Wales:

The newly-appointed inspector of nuisances for the rural district of Aberystwith has made two reports, which reveal an almost inconceivable state of degradation among the people. A large number of the houses are altogether unfit for habitation, and those hovels are terribly over-crowded, adults of both sexes being herded promiscuously together. In one case, sixteen men sleep in eight beds in two small rooms; and in another instance four men occupy the beds during the night and four during the day, the day-occupants frequently having to wait until the night-men get up. In one place a family lives in a hut, which is also used as a slaughter-house, skin-room, and butcher's shop; and in another, a woman, her grown-up daughter, a cow, a heifer, and nine fowls occupied one room, which has no fire-place, no window, and no light or ventilation beyond that provided by the door.

Dr. Griffiths, the medical officer of health for the borough of Sheffield, in his annual report issued in 1874, thus refers to the sanitary condition of the dwellings of the poor:

Many of the dwellings of the poor are unfit for them. One room frequently serves the threefold purpose of bed-room, dwelling-room, and work-room, and the cubic space for air is totally inadequate for the health of the tenants. When to this is added that the windows are generally what are termed Yorkshire lights, or casements, many of which cannot be opened; and that when panes are broken the deficiency is supplied by wood or paper, excluding the light; and that whole families, without regard to sex or age, the single and married, are promiscuously mingled—there need be no surprise at the existence of disease nor at the spread of infection.

The following extracts are from a report on the sanitary condition of Liverpool, made in 1871, by Dr. Parkes and Dr. Sanderson:

Within the courts each house usually consists of a room on the ground-floor, a room above this, and a third room in the attic. Most of them have cellars. It very frequently happens that there is a family in each room except the cellar. In many cases the staircase forms part of the rooms, and is without any window, so that in fact there is an inevitable mixture of the air contained in all the rooms. Few constructions could be better adapted for the spread of contagious diseases.

Many of them at once attributed their condition to drink; others owned it on being pressed on the matter. Several women gave an exact statement of what their husbands earned and what they brought home. Two examples are selected of workmen in whose cases there was no irregularity of employment. A tin-plate worker in constant work earns 22s. a week. He has a wife, evidently a careful, respectable woman, and four children. In reply to questions, she said he drank a little, then owned "he drank very heavy." Sometimes he brought home 18s., sometimes 16s., sometimes 12s.; last week he drank it all. If he would bring 22s. a week, she should be "happy as the day is long." This family of six persons were living in one back room, for which they paid 1s. 6d. a week; it was 10½ feet long, 9 feet broad, and 8½ feet high; the furniture was a bed, table, and two rickety chairs. Two of the four children were sick. In the front room of the same house, the rent of which was 2s. a week, a man and wife, a daughter aged 17, and a son aged 15, lived; the man earned 24s. a week, and passed his

time in drinking hard, repenting and saving, and then drinking again; the wife "drank all she could get." The son and daughter earned next to nothing.

The unhappy people seem to know none of the comforts and few of the decencies of life, and widespread habits of drunkenness, and consequent want of food, aid their wretched homes in destroying their health.

It is no doubt partly from the smallness and precariousness of the earnings of unskilled industry, that so many families live in the single rooms of sub-let houses, and thus perpetuate their miserable condition in the training and bringing up of their children. *It may be a question whether this condition of their homes promotes the vice of drunkenness, or whether drunkenness itself be the primary and originating cause of that thriftless improvidence which leads to poverty and want.* But there is another phase of the habits engendered by the single-room tenements of our sub-let houses, which is not without interest in all future measures for the education and improvement of the people.

In sixty-two instances adult sons and daughters slept in the same room with their parents, and in three instances in the same bed. In one hundred and fifty-two instances adult daughters slept in the same room, and in fifty-six instances in the same bed, with their parents. In two hundred and fourteen instances adult sons slept in the same room, and in one hundred and fifty-eight instances in the same bed, with their mothers. In thirty-seven instances adult daughters slept in the same room, and in twenty-seven instances in the same bed, with their fathers. In fifty-nine instances the mother with her adult sons and daughters slept in the same room, and in twenty-one instances in the same bed, together. In twelve instances the father, with his adult sons and daughters, slept in the same room, and in six instances in the same bed, together. In seven instances a mother, adult son, and a female lodger slept in the same room, and in two instances in the same bed, together. In sixty-four instances a man, his wife, and a female lodger slept in the same room, and in three instances in the same bed. In twelve instances a man, wife, and male lodger, slept in the same room. In thirty-nine instances adult brothers and sisters slept in the same room, and in twenty instances in the same bed. The overcrowding which we find in sub-let houses is generally connected with or caused by these bad arrangements of a family. Thus, for example, in one room of the cubical dimensions of 900 feet, a mother and her two sons, aged eighteen and twenty, were in one bed, and a man, his wife, and his daughter, aged eighteen, in another bed. In another room of the cubical dimensions of 800 feet, there were found sleeping, a father, two sons of eighteen and twenty, a daughter of twenty-two, and a female lodger of thirty years of age. In another room of the cubical dimensions of 800 feet, there were found sleeping in one bed on the floor, two brothers of twenty-four and twenty-six, and four sisters of twenty-eight, twenty, eighteen, and sixteen years of age, respectively.

The following table, from official sources, shows the crowded condition of some parts of Edinburgh, and the consequent increase of mortality.

*Over-crowded tenements and their vital statistics.*

Name.	Area in square yards.	Rooms.	Families.	Population in 1864.			Mortality in 1863.		
				Above 5 years.	Under 5 years.	Total.	Above 5 years.	Under 5 years.	Total.
Gowanloch's Land.....	292	60	39	109	25	134	2	2	4
8 Cowgatehead.....	365	60	38	155	24	179	4	2	6
Middle Meal-market Stair.....	400	59	56	197	51	248	3	5	8
Old Meal-market Stair.....	300	31	22	96	14	110	4	3	7
56 Blackfriars' Wynd.....	250	49	28	103	27	130	1	1	2
23 Carrubber's Close.....	353	45	35	107	28	135	3	2	5
Scot's Land, Cowgate.....	250	53	42	128	42	170	6	3	9
Hope's Land, Canongate.....	230	36	29	80	23	103	2	1	3
Purves' Land, Canongate.....	352	32	29	92	27	119	.....	4	4
Burns' Land, Canongate.....	176	25	13	54	14	68	.....	1	1
Birtley Buildings, Canongate.....	254	35	33	101	24	125	1	6	7
Crambie's Land, Westport.....	167	27	20	54	16	70	1	2	3
3 East Richmond street.....	285	56	43	148	29	177	1	2	3
23 St. James street.....	438	70	56	168	52	220	3	3	6

It is gratifying to know that the improvement in dwellings for the working-classes has engaged the attention of philanthropists in Eng-



land, and that the subject has received the careful consideration of Parliament, as will be shown on a subsequent page.

The London Times, in an article showing the small number of the comfortable, regards those families which pay a rental of less than £20 a year as not among the "comfortable." The writer says:

Seven in eight of our population live in "houses of less than £20 a year—that is, are not, in the ordinary sense of that word, comfortable at all, but are, with more or less of content, always struggling to make ends meet, always compelled to think of money, always affected in the most direct and serious way by a tax, a rise in prices, or a stoppage in the course of trade. It is only to one in eight of our population that a sovereign is not a very serious sum, only to four in a thousand that a five pound note is not an important, most important amount of money." The number of the really comfortable in Britain cannot by possibility exceed 70,000, while it may be very little more than half that amount.

As the working-class pays a rental of less than £20 a year, it will be observed that this vast array of work-people are living outside the pale of "comfortable."

#### DEGRADED CONDITION OF THE WORKING-CLASSES.

[From the London Daily Telegraph, July 13, 1874.]

But there are people who are worse off than the mill-hands, whose abiding-places are the slums of Manchester. I should not have thought it possible, but so it is. There are toilers and sweaters for daily bread whose condition in life is worse even than that of the miner who delves in the bowels of the earth or the smelter of iron who works naked to the waist, and with a leather mask before his face to keep his eyes from being melted in his head, as is the red ore in the melting pot it is his business to feed and keep at a molten simmer. I thought and said so a fortnight since; but at that time I had not visited the potteries, nor passed half a day in Longton, which is the center of the murky region where half the crockery that is used in the world is produced; and I am afraid to say how many times dirtier, smokier, and, to the unaccustomed, more stifling than any other pottery parish round about.

The following extract from the report of the Inspector of British factories indicates the degraded condition of the work-people in the fens and at brick-making:

I have just received a report from Mr. Lakeman of some work he has done in the fens of Cambridgeshire: "I have gone through the center of the fen district, and of all the journeys undertaken by me it was the most tedious and uninteresting, excepting that I have taken note of a type of people seemingly peculiar to the fens, vacant in expression of countenance, ignorant of everything but work. They do not know the names of the localities around them, and never see any one better than themselves, save their employers. I wonder how these poor creatures are to be reached, what is their hope, where their happiness or comfort in life."

From another part of the country I have had much the same picture: "A most barbarous, semi-civilized, ignorant set. Men and boys look like red Indians; the sand used in brick-making being burnt red, and with which their bodies are covered, working bareheaded, barefooted, with exposed breasts, and with wild looks, drinking all day Sunday; Monday and Tuesday dog-fighting and man-fighting. They resume work on Wednesdays, when the poor little unfortunates are made to toil away, stamping and carrying, and pressing a good fortnight's work into three or four days. One man, who last week earned in four days 28s., took his wife home a loaf of bread and 6d."

Not only among the fens and in the brick-fields of England is this degradation manifest, but in those towns which exhibit the highest type of civilization. In some of the manufacturing towns of England there is a downcast look which indicates hopelessness, if not despair, on the part of the working-classes. They seem to have sunk into a condition of despondency from which nothing can rouse them. No ray of hope glimmers in their pathway, beckoning them to higher position. They seem to regard their social condition as fixed. They have no hope, and apparently little desire, to rise superior to their present state. What

their fathers were they are, and their sons will be. Many of them seem destitute alike of hope for increased happiness here or hereafter.

These traits were noticed by the author more at Wolverhampton, and elsewhere in the Black Country, and at Bradford and other portions of Yorkshire, and in some localities of Lancashire. The working-classes of England are not possessed of the elasticity of the Irish, and seem more despondent than the people of any class in other countries, except the recently emancipated serfs of Russia.

The following extract from a letter written by Professor Shepard, of Chicago, to the New York Examiner, although perhaps too highly colored for an accurate description of the working-classes in the whole of England, is yet a true as well as graphic presentation of the condition of a portion of them.

#### THE WORKING-CLASSES OF BRADFORD.

Bradford is a thoroughly English manufacturing town. You do not know what faces I saw, if you never saw the faces of the English working-classes.

O, the wretched faces of weary children, the faces lit up with a forced mirth! The faces that have been feeling the grinding and grinding for generations—the inherited faces of the English working-people, men and women and children, father and son, mother and babe. I don't believe there is such a looking lot of people on the face of this earth as the working-classes of England. Just over the Tweed there is relief. Bad enough there, but not to be compared with what you see in the great manufacturing towns of England.

I recall Switzerland. But there, with all the appearance of dull uniformity, you see no grinding of the faces of a lower class by the heels of an upper class. The "common people" of that uncommon country have nobody above them and nobody below them. Besides, some education is compulsory, and some military training. They are picturesque in dress, and free-looking in the face, however addicted to unlovely labor and unambitious industry—a dead-level people in the most mountainous of countries. Above them only the mountains, below them only the valleys. Perhaps they crouch to the mountains instead of to a class. Perhaps the mountains have oppressed some of the aspiration out of them, as the ravages of adamant caste have crushed all the imagination out of the British workman. In the north of Europe, whatever you see of haggardness and weariness, you see a certain something like contentment, and elasticity, and thrifty independence of behavior. Then, as for the south of Europe, the lowest are the happiest. Laborer, beggar, and pauper are jolliest of them all. The destitute are never destitute of sunshine in sky or soul. You do not sympathize, you envy; you do the sighing, not the ragged beggar. So in Ireland. With all his barking and biting at the heels of the "oppressive" old lion, Pat never shows any of the grind in his face. The Irish peasantry are as pleasant a sight as any sight of the sort in the world. In the land of the Celt or the Southron you will always find the veriest squalor touched with nature's brush of the picturesque.

But there is nothing to relieve the eye or cheer the imagination in this vast sea of down-turned faces in England. The lower classes there are utterly destitute of anything calculated to break the monotony of their toilsome look. They have no manners, or customs, or costumes; no games or frolics with which to animate the spectacle they present to the eye of the foreigner. They work and work and work; they drink and drink and drink; they smoke and smoke and smoke.

They do as their fathers did; their children do as they do. Father and mother and child go forth to their labor until the evening, and go forth to the beer-shop when the evening comes. That shop, with its blaze of gas, its sparkling brass hoops on the gin-casks, its burnished ornaments on the beer-fountains, its row of tidy tumblers, its clatter of coppers on the counter, its jingle of glasses, its turgid apology for humor, and its ceaseless sound of boozy discontent—that grog-shop contrasts fatally with that workman's home. That is his only home, indeed—his home and theater, recreation and education, social life, mental life, and animal life, all in one. Is it any wonder that the one candle-lit, dingy room up the court is unable to hold its own against it!

So it is a dead-lift—this effort in behalf of the lower millions of England. They are not attractive; they are horribly unattractive. They repel the imagination. You avert your face; you never smile, because they never smile.

The wickednesses of the low Italian fascinate before you have had time to be on your guard; the goodnesses of the low Briton are repulsive. There is no spontaneity or enthusiasm, or quickness of humor or brightness, or zeal or snap here. It is all so dogged, and sluggish, and logy. There is an ever and forever ooze, in the way of the British workman, that sets you almost distracted. It is pulling teeth to pull him through.

## REPORTS ON THE CONDITION OF THE WORKING-CLASSES OF GREAT BRITAIN.

Having directed attention to the drinking habits of the laboring-classes and the condition of the rooms they occupy, it is now proposed to present, *in extenso*, the several reports made by consuls of the United States, and others, on the subject under consideration.

## SHEFFIELD.

*Letter from U. B. Webster, esq., United States consul.*

UNITED STATES CONSULATE,  
Sheffield, August 4, 1872.

In the great steel-manufactories of Sheffield, employing, each, several thousands of men, scarcely any work is done on Monday, and very little on Tuesday. I am informed that this is true of a large portion of the laboring population of this town. On those days the streets and drinking-places literally swarm with workmen. Work stops on Saturday at 1 o'clock. The loss of time on Monday is due principally to the drinking habits of the operatives, but in part to the necessity of taking time for repairs of machinery.

It has been stated to me as a fact, that, although the rates of wages are advancing, the men are earning less money, because they work fewer hours.

In estimating the average weekly expenditures of a family of two adults and three children, the fact is to be taken into account that, in a large proportion of families, the wife and some of the children, the latter often as young as twelve years of age, earn considerable amounts of money. This makes it very difficult to estimate the actual earnings and expenditure of the families of the working-people. They expend all they earn, and they earn more than would appear in the report of the amount paid to the man who is supposed to support the family. And here we see the superior condition of the American workman of the same grade, he, by his own earnings, being able to support his family far more comfortably than the English laborer, with the immense added advantages of freedom to the wife to care for the interests of the home, and to the children the privilege of constant attendance at school.

The fact of the mother, in many cases, being away from home at work, and consequently neglecting the family, enters as an important element in estimating the moral condition of this class of people. For the husband, knowing there is no comfort for him at home, resorts to the nearest dram-shop for refreshment, the wife in many cases doing the same. And these shops abound in every neighborhood; hence the sad neglect of the children. Whether the practice of drugging mentioned by the Hon. Mr. Mundella, M. P. for this district, exists to any extent in Sheffield, I am not able to say. That it does prevail to a sad degree in some parts of England you will see from the address of Mr. Mundella to his constituents, which is inclosed. But this neglect of the children in their tender years, and the close confinement of the very young of both sexes, will account for the fact that so many dwarfed, crooked-legged, and otherwise deformed persons are seen in our streets.

The fact that young men and young women are employed side by side in the same kind of labor will explain, in part, the low state of morals that prevails. The work is very largely dirty work; and when one sees the untidy condition of the vast numbers of females that swarm from these great "works," the conviction will force itself upon the mind that virtue must be in great peril while in constant association with such want of cleanliness. This condition of the operatives is somewhat excusable, since there are no free public baths in Sheffield, a town that needs them as much as any in the kingdom. Indeed, there are no baths of any kind at all sufficient to meet the wants of the people. If any of the gentlemen who have made large fortunes by the aid of the working-people should desire to do some good thing in acknowledgment of their prosperity, they could hardly do better than to establish free baths of ample accommodation in every ward of this great town.

In regard to the health, comfort, morals, and education of the people, the facts in regard to Sheffield will not probably differ essentially from what is true of other large manufacturing towns of England.

In the year 1870 there came before the courts 209 cases of bastardy. It is probable that as many more occurred that were not made public, although I have no means of obtaining definite information.

During the week ending July 27, 1872, there were 654 inmates in the Sheffield Workhouse. There were, also, 5,465 persons receiving "out-relief," making an aggregate of 6,119 persons more or less dependent upon public charity for support at the best season of the year.

*Letter from Mr. Consul Webster dated—*

*Sheffield, January 22, 1874.*

DEAR SIR: In reply to your inquiries in regard to the condition of the workingmen of Sheffield, especially as to their habits, I have the honor to submit the following, which will be found, I think, to contain definite replies to all your questions. I have endeavored to state the facts as they are, without exaggeration. In order to do so, I have made many inquiries, not merely of employers and employed, but of intelligent, candid, and disinterested persons in all walks of life, especially of those who have the best means of knowing the class in respect to whom you inquire.

You ask first, are they (the workmen) industrious? If a stranger should visit this great town, with its hundreds of tall chimneys, and should go through the extensive works that annually supply the world with such immense quantities of their products, he would be very likely to come to the conclusion that this is a very busy and industrious people. There is no denying the immense results wrought out by the Sheffield workmen. They are a hard-working people—*while they do work*. But it is true that a very large proportion of them are idle a great many days in the year, when they might and ought to be at work, and when their employers are needing their labor. Every Monday is so generally a holiday, that it has come to be called Saint Monday. The streets are full on that day of men at leisure, and this fact cannot fail to strike a stranger, especially an American, who was not acquainted with the customs of the town. This Monday idleness is, in some cases, enforced by the fact that Monday is the day that is taken for repairs to the machinery in the great steel-works, during which the masses of the men employed in such establishments must necessarily be out of work. But this will account for but a small portion of the idleness on that day. It is, to a great extent, voluntary, and has become a settled habit and custom. And this holiday is, in thousands of instances, protracted through the next day, so that large numbers of the workmen, stopping work on Saturday noon, do not commence again until the following Wednesday. Such men can hardly be called industrious.

From inquiry and my own observation, I believe that far the larger part of this loss of time, both for employer and employed, and the reckless waste of money consequent upon it, is the result of the drinking habits that prevail so generally. It is painful to see how the weekly wages are squandered by the thousands who throng the drinking places on Saturdays, Sunday at certain hours, Monday, and Tuesday, and, indeed, on all the days of the week. I would not say that Sheffield will compare unfavorably with other large manufacturing towns of England; I presume it would not, although the nature of the labor required here is such as perhaps to lead to greater temptations to drink, and to a fancied greater necessity for it, than in districts where the work is of a much lighter kind. I say fancied necessity, because there does exist here a body of men employed in the most exhausting kind of labor in our great steel-manufactories, who are total abstainers, and who, to say the least, have proved themselves the equals of any in efficiency and endurance.

Another great cause of waste of time and money ought to be mentioned. It is the prevalence of gambling, in the form of rabbit-coursing, handicapping, pigeon-shooting, and the like. This evil has become so great, that a public meeting was called not long since to consider means for suppressing it.

I am quite sure that the amount of money spent in the above-mentioned ways has increased with the advance in wages, and that the larger amounts earned by the workingmen have not been used, except in comparatively few cases, to increase the comforts of their families. They have always lived well, so far as their food is concerned. They spend their money freely for meats of the best quality, and the general appearance of the workingmen is that of a well-nourished and vigorous people. There are, of course, many exceptions to this belonging to a class far below, such as can be found in every great town.

Respectfully yours,

C. B. WEBSTER,  
*United States Consul.*

HON. EDWARD YOUNG,  
*Chief of Bureau of Statistics, Washington.*

BIRMINGHAM.

*Letter from Mr. Consul Gould on the condition of the working-classes.*

*BIRMINGHAM, November 12, 1873.*

SIR: In response to your inquiries, I beg to say that there is no improvement apparent in the condition of the working-people in consequence of the advance of wages.

It was said boastingly by statesmen a few months since that the nation had drunk itself out of the Alabama claims by the increased income from the tax on intoxicating drinks during the past year.

The general testimony is that no more comforts go to the family now than formerly. Increased pay means, with the mass of miners and forgemen, an increase of no other luxury than that of drink. In a large proportion of such homes *family comfort is totally unknown*. The increased wages also lead to idleness, as they do not care to work more than enough to secure a certain amount, and thus have more time to spend in the public house. Of course there are honorable exceptions, but the papers and general testimony of those familiar with the workmen of the district go to prove a sad increase of idleness and drunkenness.

The tenements of this class are but poor apologies for homes, in multitudes of cases their whole furniture not being worth more than a few shillings, and remaining the same as when wages were low. Pawnbrokers do a thriving business, and the only part of the week when comforts are introduced is on Saturday evening and Sunday, after the wages of the week come in. Monday usually begins with the poverty and pawning of the previous week, and thus the perpetual round continues.

The tenements are generally small and dirty, though they might be made much more comfortable and convenient if the women were trained to habits of neatness and understood housekeeping.

The families are almost universally large, requiring the manual labor of the mother, and also of the children at an early age. The house is thus left to the smaller children, and but little attention is devoted to it. All this might be easily remedied, if the men devoted what they earn for the support of the family, and the women were trained to housekeeping. In a large number of cases the women drink as badly as the men, and have no ambition to better their condition.

Yours, truly,

J. B. GOULD,  
United States Consul.

To HON. EDWARD YOUNG,  
Chief of United States Bureau of Statistics.

#### MANCHESTER.

*Report of Mr. Consul Branscomb on the condition and habits of the working-classes of the Manchester consular district.*

SIR: The working-classes of this consular district are naturally an energetic and industrious people; but they cannot, I regret to add, be said to be very temperate. They consume an enormous quantity of intoxicating liquors, principally beer, though very many partake largely of spirits and of the cheaper wines. Intemperance seems to be on the increase, especially among the women, not only of the working-classes, but also of the middle and upper middle classes.\* This is the testimony not only of temperance advocates and missionaries, but also of medical men, Christian ministers, police officers, and magistrates. Much working time is lost, and many employers are often sadly harassed, by their work-people going off to fuddle. The president of the Manchester Chamber of Commerce, Hugh Mason, esq., J. P., himself a very large employer of labor, in his address to the chamber, delivered this morning, on the state of the labor-market in connection with the cotton trade, made the following remarks:

"They had had to pay a higher price for labor than at any period in the history of the cotton trade. There had been in all departments of the cotton trade a general scarcity of labor; and in addition to that, and perhaps as a consequence of that, there had not been that industry and that fair return of labor for wages on the part of a great many of those engaged as cotton operatives which ought to have been the case. They had taken advantage of their dominant condition, and had disregarded those necessary rules of discipline and subordination, without which no great concern, indeed no small concern, could be carried on with any degree of pleasure, or even of profit. Time, which affected all things, would undoubtedly change the present state of things."

From the foregoing testimony, which could be corroborated to almost any extent, it is obvious that much time is wasted by the work-people. Much of their earnings is recklessly squandered by and through their drinking habits, and, as a natural and inevitable sequence, the home-comforts of the families of these people are very seriously abridged by the large amount spent by the men, and, in sadly too many instances, by women, and even by youths of both sexes, in drink. And, as a further sequence, the

\* LANCASHIRE DRINK-FACTS.—Lancashire spent £13,299,750 directly upon intoxicating liquors in 1869. What did Lancashire get in return? The following statistics will show: £1,113,244 to pay in poor and police rates; 102,694 paupers; 30,000 vagrants, idling as vagabonds about the streets; 4,706 lunatics; 3,749 inquests on deaths; 99,257 persons brought before the magistrates and convicted of crime; 5,913 depredators, offenders, and suspected persons, not convicted; 2,749 houses of bad character, brothels, receivers of stolen goods, &c.; 17,733 public houses and beer-shops; 3,316 policemen employed to protect society from the dangers arising from the drink-shops; 70,392 drunkards, filling multitudes of homes with misery; 7,000,000 or more bushels of grain destroyed in manufacturing the drink, or equal to 105,000,000 4-pound loaves; 5,000 or 6,000 persons employed in the manufacture of the drink.

houses of these persons who squander so much on drink, tobacco, and all their brood of other social vices and bad habits, are squalid, wretched, and desolate. In many cases families that can unitedly earn, when they all care to work full time, three, four, five, and even six pounds per week, live in filthy and dilapidated tenements in the back slums, and sometimes huddle together in one or two rooms, without a bit of decent furniture.

Toward the end of the week and before the pay-day, they are in debt to the honest shop-keeper, the bulk of what they had earned the previous week having been spent at the beer-shop and the gin-shop. Many poor, hard-working, and sober women often complain sadly that the increased wages and the curtailed hours of labor, instead of being a boon have been a curse to the family. The men have had more to spend on "fuddle;" while the women have got less for food, clothing, and the house-rent. The evil seems to be growing and spreading in many districts, notwithstanding the earnest efforts of temperance and social reformers, the operations of the newly-formed school-boards, the increased activity and zeal of many of the clergy and dissenting ministers, and the recent amendment of the licensing laws, whereby places where intoxicating liquors are sold have had their hours of sale curtailed. The drinking habits of the people have become so very bad that any slight restriction does not seem to produce an appreciable result, except that the downward tendency is not now so rapid as it was, and as it most probably would have been had there not been some little legislative check applied. This report, however, would be incomplete, and would not do justice to the people of this district, if it were not also stated that, side by side with these pernicious and wide-spread drinking habits, and the consequent social vice, misery, and disorder, there is, at the same time, an increasing band of active, zealous, and enthusiastic temperance and social reformers. Total-abstinence societies, Bands of Hope, Good Templar Lodges, and workmen's clubs, on temperance principles, are being established and carried on as never before. There are also many co-operative societies, in which the working classes, the more sober and industrious portions, are investing their savings, and by means of which they are not only providing more home comforts, but are making provision for times of sickness, and when death shall come, securing some substantial aid for the bereaved ones.

This district is the headquarters of most of these social movements for the promotion of sobriety, thrift, and social progress. The United Kingdom Alliance, which aims at the total legislative suppression of the liquor-traffic, has its central offices in Manchester.

\* \* \* \* \*

There are no figures showing the education of the whole city, but of 8,863 persons committed to the Manchester city-jail in 1870, the following is a return of the degree of their instruction :

Neither write nor read .....	3, 459
Read and write imperfectly .....	5, 313
Read and write well .....	86
Superior instruction .....	10
	8, 868

I remain, very respectfully, your obedient servant,

C. H. BRANSCOMB,  
United States Consul.

Hon. EDWARD YOUNG,  
Chief of Bureau of Statistics, Treasury Department, Washington, D. C.

In Manchester the free libraries have proved highly successful. The number of times that persons have availed themselves of the libraries during the year 1871-'72 was 2,264,688, against 2,112,900 the previous year. The accessions amount to 14,387 volumes.

#### LIVERPOOL.

*Letter from Dr. Trench on the condition and habits of the laboring classes.*

MEDICAL OFFICER OF HEALTH DEPARTMENT,  
MUNICIPAL OFFICE, DALE STREET,  
Liverpool, November 20, 1873.

SIR: Your questions are so general that I fear my answers will appear to rest, a good deal more than I like, upon my individual opinion; but such must always be the case where the questions are not sufficiently definite to admit of statistical replies.

With this explanation I will proceed to consider your questions *seriatim*.\*

\* These questions were prepared by the author of this report and forwarded to the consuls of the United States at Liverpool and elsewhere in Europe.

*I. Are the laboring classes industrious?*

I consider that the laboring classes of Liverpool are as a rule wishful for employment, and that laziness or a desire for unoccupied idleness is not one of their vices. All labor which is not in the form of piece-work and not paid for according to results, will be perfunctorily and negligently performed, and hence opinions as to the industry of the people will always vary according to the stand-point of the master and the servant, the employer and the employed. It is necessary also to remember that the condition of the laboring classes of Liverpool is somewhat peculiar. There is little or no continuous occupation for skilled laborers, either in workshops or factories, as is the case in such towns as Birmingham, Manchester, and Sheffield, and hence, in Liverpool, we have very few classes of workmen receiving high wages with whom it is an object of trades-unionship to prevent the labor-market being overstocked or the supply being in excess of the demand. We have not in Liverpool any extent of that arranged and planned idleness on special days, (termed in Sheffield saints' days,) when the highly-paid artisans and workmen, in order to keep up the demand, systematically refuse to work, however urgent may be the requirements of trade. There is, however, in Liverpool a great deal of enforced and unavoidable, though comparatively little of voluntary idleness. The chief demand in the labor-market of Liverpool is for unskilled or mere manual work; and as, even in the most prosperous years, when trade is brisk and the shipping fully occupied, the supply of workmen is always larger than the demand, it follows as a consequence that large sections of the laboring classes of Liverpool are obliged to rely upon, and to be content with, casual and uncertain occupation.

Therefore, so far from using a combined and voluntary idleness to keep up the price of labor and to regulate its supply and demand in their favor, they are, as a rule, obliged to be content with uncertain and irregular work, given at the option of their employers. The nominal wages of the unskilled day-laborer in Liverpool, such as the dock or cotton porters, is 4s. a day or 24s. per week; but as a result of the competition occasioned by the excess of supply over demand, the average wages of such workmen, even in years of prosperity, do not exceed 18s., or four days and a half work per week. This average will greatly vary, according to the state of trade. This is markedly seen when a continuance of easterly winds prevents the arrival of sailing-vessels, by which hundreds of the laboring classes are at once either totally thrown out of employment or are only able to obtain one or two days' occupation in the week. Indeed, so varying are the changes of the labor-market, and with it the wage and income of the laborer, that the list of the numbers receiving out-door relief and the list of sick and dead of typhus caused by want and overcrowding, can be used as barometers of the state of the trade of the port. One of the great drawbacks of Liverpool, socially, morally, and sanitarily, is this excess of unskilled labor, which originally owed its origin chiefly to the Irish famine-fever of 1847, when thousands of the poor people fled to Liverpool and were supported by the rates.

Another peculiar feature of the labor-market of Liverpool is that there is no established industrial occupation for young women or for boys and girls, as exists not only in the manufacturing districts of Lancashire and Yorkshire, but everywhere where the textile fabrics are manufactured, and where weaving, spinning, and knitting are carried on as manufactures. The consequence of this is that while in Birmingham a person is struck with the absence from the streets of young people during the working-hours of the day, he is equally astonished at the great numbers of the young and active who prowl and lurk about the courts and alleys of Liverpool at all hours. This idleness among the young, in large sections, of the people is very evident in Liverpool. It is at first compulsory idleness, occasioned by the absence of occupation or work; it soon demoralizes the child and then degenerates into a habit of vicious idleness. It is among such poor children that industrial schools are wanted; for unless children are taught some kind of industry or trade, we cannot hope to see them make any effort to rise above the wretchedness of their parents.

*II. Are the laboring classes intemperate?*

*III. If so, do they lose much time from labor in consequence?*

*IV. Are the comforts of their families seriously abridged by the amount spent for drink?*

I consider that it has been incontestably proved that the working classes of Liverpool are extremely intemperate, even when compared with similar sections of the community in other large towns of Great Britain. I know no stronger or sadder proof of this than the returns made by the police force, which show that during last year, 1872, 18,810 persons were brought before the justices on the charge of drunkenness, and that of this number no less than 7,786 were females.

This number, though so large, will only include persons who were obstreperously drunk. It will follow as a corollary from this fact that much time is lost either directly by incapacity for work on account of drink, or indirectly by sickness consequent on the effects of drink, and also that the comforts of the families of the laborer are seriously abridged by the amount spent in drink.

The causes which lead to the great intemperance of the laboring classes in Liverpool are—

1. The number of sailors constantly arriving at the port, who, when on shore, freely spend their money in a reckless and dissipated manner.

2. The uncertain occupation and wages of laborers, among whom want and distress excite the desire and feeling for the stimulus of drinks.

3. The squalor of the homes of the unskilled laborers in contrast with the warmth and glare of the public houses, and the existence of 1,884 public houses and 282 beer-houses as temptations to the wretched people.

We all acknowledge the vice of drunkenness to be the great moral evil of Liverpool; but, however we may deplore its existence, no statesman or philanthropist has been able to suggest a practical remedy.

The extent of poor-law relief is a very fair test of the physical condition of the people, and as want, to the extent of requiring poor-law relief, is largely due to intemperance, so the number of paupers will be to a certain extent an index of the extent of that vice. The population of the parish of Liverpool at the last census was 238,411, and we find that during the last seven years, being years of ordinary prosperity, the average number of persons at one time within the parish receiving poor-law relief was 15,910; or, in other words, the number of persons receiving parochial relief included every sixteenth person within the parish.

It is not thereby meant that all paupers are drunkards, but it is implied that drunkenness may be considered to a large extent a motor or cause of such extended pauperism.

V. *What is the condition of the rooms they occupy?*

VI. *Do many families live in one or two rooms only?*

The extent of room-occupations by the families of the laboring class may be judged of by the following facts:

The total assessments for the year 1873 in the borough of Liverpool are 101,042; of these, 11,572 are for warehouses, shops, sheds, &c., leaving the number of inhabited houses 89,470. We find that 64,903 of these houses are assessed at a rental below £13 per annum, and 9,528 are assessed at between £14 and £20 pounds per annum, leaving 15,039 houses at an assessment above £20 per annum. It is further known that the houses below £13 consist merely of three apartments, of an average size of between 800 to 900 cubic feet for each apartment. All such houses with singularly few exceptions are sublet in single-room occupation. The usual practice is for the landlord's tenant to sublet the middle room to another family; but occasionally, in the Irish quarters of the town, both bedrooms are sublet, and three separate families live and sleep in the same house.

Besides the 64,903 houses at a rental below £13, there are 9,528 houses at a rental between £14 and £20 per annum. These houses contain, on an average, five, or six apartments, namely, a front and back kitchen and four bed-rooms. The average cubical dimensions of the front bed-rooms are from 1,000 to 1,100 feet, and of the back bed-rooms from 800 to 900 feet. Such houses are also, as a rule, sublet by the landlord's tenant in single, double, and treble room-occupation. It will be thus seen that 80 per cent. of all the habitable houses of Liverpool are, as a rule, sublet in room-occupation for longer or shorter periods; in fact, sublet is their normal condition. The extent of subletting of houses, and consequently of room-occupation, is such a grievous evil in Liverpool, both as respects filth and overcrowding, that Mr. Graves, our late member, introduced into the public-health act of 1866 a clause enabling local authorities to make regulations—

1st. For fixing the number of persons who may occupy a house, or part of a house, which is let in lodgings or occupied by members of more than one family.

2d. For the registration of houses thus let or occupied in lodgings.

3d. For the inspection of such houses and the keeping the same in a cleanly and wholesome state.

4th. For enforcing therein the provision of privy accommodation and other appliances and means of cleanliness, &c.

5th. For the cleansing and lime-washing at stated times of such premises.

The power thus given by the law was specially meant for Liverpool, and for the remedy of an evil which is greater here, among our unskilled and ill-paid workmen, than it is among the skilled mechanics and factory-operatives of Manchester, Sheffield, and Birmingham.

The health committee have enforced the law both as to registration, cubical space in rooms, and periodical inspection, by day and night, among 10,162 of the worst of sublet houses in Liverpool. It need only be stated that, by our by-laws as to sublet houses, and by the general provisions of the nuisances-removal act, carried into force by thirty inspectors, we are enabled to insure to a tolerable extent the general cleanliness of the rooms of the working-classes as far as regards ceiling, walls, and floor; but no words descriptive of wretchedness would be too strong to picture the squalor of



houses altogether destitute of furniture, as seen in large districts of the town occupied by the Irish, and occasionally seen even in the districts inhabited by English and Scotch.

VII.—*Have the recent advances in wages resulted to the advantage of the families of the workmen, or have they tended to produce greater irregularities?*

I do not know what may be the case in manufacturing districts, where the custom of strikes for increased wages prevails, where workmen are banded together by unions to maintain high wages and to prevent the supply of labor being equal to the demand, and where the custom of holidays or saint-days has become part of a system of organized arrangement. In such manufacturing towns the charge against the workmen of demoralization consequent on high wages may be true; but of one thing I am perfectly convinced—that the rant about high wages demoralizing the people in Liverpool, and thereby increasing the extent of drunkenness and crime, is utterly false.

I can state, from personal observation, that the condition of the people in these last few years has vastly improved.

I remain, dear sir, yours, very truly,

W. S. TRENCH.

TO GENERAL FAIRCHILD,  
United States Consul.

*Extract from a letter to the author from the Hon. Lucius Fairchild, United States consul at Liverpool.*

The almost universal testimony here is to the effect that the recent rise in wages has not contributed, as a general thing, to the greater comfort of the families of the laboring-men. I am told, by every one with whom I have conversed on the subject, that the increase of drunkenness and all dissipations which follow idle hours is alarming. I believe that it is the opinion of the best informed that the families of the laboring-men are even worse provided for, as a rule, than when wages were less.

Under date of November 22, 1873, General Fairchild writes as follows:

In my last I gave it as the general opinion here that the laboring-classes had not been substantially benefited by the recent rise in wages, which I meant to more especially apply to those engaged in the coal-mines and factories. You will note that Dr. Trench gives other testimony respecting the influence of such rise on the laboring-classes of this town.

ST. HELEN'S, NEAR LIVERPOOL.

*Letter from John Hammill, esq., consular agent of the United States.*

UNITED STATES CONSULATE,  
St. Helen's, November 12, 1873.

DEAR SIR: In reply to your inquiries in regard to the habits and condition of the working-classes in this district, I may say that they are very various, as, I suppose, must be the case where there is a population of 50,000 composed almost solely of them; but I will describe their condition as well as I am able. I will deal with the colliers first, as they are a numerous body, and are at the present time attracting the most attention, on account of the enormous price of coal, for which they are in a great measure to blame, as they will not work more than, say, three weeks per month; in consequence of which they get considerably less coal, making it scarce, and therefore dear. They are enabled to afford this waste of time through the extravagant wages they are now getting, (I believe fully 100 per cent. more than they got two years ago,) but which I am afraid are doing them no good, as when they are not working they are following such objectionable pursuits as drinking, gambling, &c., which, of course, do not improve their condition, nor the condition of their families, as they must spend, or rather waste, a good deal of their money in this way. Their mode of living now is very different from what it was some year or two ago, as then butcher's meat was considered a great luxury, and seldom indulged in, but now, although it is considerably dearer, they not only buy it regularly, but will have nothing but the best joints. I think this remark applies equally to all working-men, but to the colliers in particular. Their morals have improved since the discontinuance of sending women down the pit, but they are not remarkably good yet. They are, as a body, very reckless with their money, squandering it about, a great many of them not even paying their cottagerents, which only average 3s. per week. They marry early, the men from eighteen to twenty-two, and the women from seventeen to twenty. Of course, there are steady, industrious men among them, and what few of these there are must be living very comfortably and saving money.

The men employed in the various glass-works are, as far as I am able to judge, a great contrast to the colliers; at any rate, you do not see them hanging about the streets, drinking and idling all day long, as you do the colliers, but this may be accounted for by their having to work during the day and not having the same opportunity. Be that as it may, they always appear respectable, and work regularly.

Women are largely employed in the plate-glass works, and earn from 15s. to 20s. per week. The men's wages depend upon the kind of work they do. Some of the glass-blowers can earn from £4 to £5 per week. On the whole, I think the glass-makers are the most respectable large body of men we have. I now come to the laborers in the chemical yards or works, and I think I should be justified in saying that they were even a worse lot than the colliers, but I conclude it arises in this way, viz: that the work required is, for the most part, dirty and disagreeable, and many men object to it; consequently it falls to the least respectable in the community, who in this district are largely composed of Irish, who, in addition to their other vices, are very dirty in their habits and habitations. They live in the lowest part of the town, and, for the most part, half starve their wives and families. I have seen their children running about with bare feet, clothed in rags, and using the most profane language—children whose ages ranged from eight to fourteen years. There is no doubt that a large percentage of the prisoners at our police courts are supplied from these people. Any epidemic which breaks out in the town is sure either to originate there or to fly there at once. Other workmen, such as joiners and bricklayers, are very ordinary, and I have no remarks to make upon them.

I may add that all the workmen live in cottages, the rental of which ranges from 2s. to 5s. per week, and that each family have a cottage to themselves, except in a few cases, where they take single men in as lodgers. Every able-bodied man, if he will work, can make a good living, and the scarcity of poor people or beggars is very noticeable. I have said nothing about wages, as it would be almost impossible to give you any exact idea, they are paid so differently by different people. Some men work per hour, some per day, and some do piece-work. For instance, take a chemical works. Say they make (as most of them do) salt-cake, black-ash, caustic soda, bleaching-powder, chlorate of potash, soda-crystals, &c. Now, each of the men employed in these different manufactures gets differently paid, and the manufacture of glass the same.

Yours, obediently,

JOHN HAMMILL,

*United States Consular Agent, St. Helen's.*

HON. EDWARD YOUNG,

*Chief of United States Bureau of Statistics, Washington, U. S. A.*

## GLASGOW.

### HABITS OF THE LABORING-CLASSES.

[From a report of Mr. Consul Jenkinson.]

If the efforts of laboring-men in this country to increase the wages paid them were for the purpose of procuring more comfortable homes, better food, better clothing, better education, an increase in all the comforts of life, one could heartily wish them success in their efforts. But there are grave reasons to fear an opposite result. That an increase of wages would only bring greater misery and greater vice by the opportunity it would give for greater self-indulgence, especially in drink, is feared by many of the best friends of the working-men of the country. That drunkenness prevails to an alarming extent among this class of the people cannot be denied. That it has increased as their wages have been increased is also true. Many have, no doubt, been benefitted by such increase of wages, but most, it seems, only spend their extra earnings in extra quantities of whisky. The British board of trade and excise report, just issued, gives some important statistics bearing upon this point, extending, however, to the whole of the United Kingdom. This shows that in this country the consumption of sugar, tea, and coffee has upon the whole decreased during the year, while in nine months reported of 1872 the increase of spirits consumed has been over 12 per cent. over the corresponding period of 1871. Commenting on this statement, a leading Scotch paper says: "For several years past the rate of increase in intoxicants has been growing, while that on the other commodities has been diminishing; and at this moment, while the consumption of intoxicants is increasing more rapidly than ever, that of the other and better commodities has come to a stand." It seems, therefore, that the laboring-classes of this country have little wish to better their condition; that comfortable homes, good and plentiful food and clothing, are all so far above their reach, they will not attempt to secure them, but any wages they receive above the mere pittance to which they have been accustomed is spent in rendering their condition still more wretched and possibly still more vicious.

## MONEY SPENT AT THE PAWN-SHOPS.

A fact of terrible significance was stated recently by a magistrate of Glasgow, Scotland: "I have tried," he said, "to come at some sort of estimate of the money spent yearly by the working-classes in pawning, and the result has been that from £150,000 to £200,000 a year is spent in interest!" In reply to a question, Is not that more than is spent in all the religious observances and education of the city? the reply was, "I think it is a great deal more."—*English paper.*

## NEWCASTLE-UPON-TYNE.

*Report of Mr. Consul Jones on the moral and social condition of the working-classes.*

Newcastle-upon-Tyne is unfortunately a very unhealthy town. This condition of things is produced by a variety of causes: First, it is situated upon the east coast and where the island is most narrow; hence we are more susceptible to all atmospheric changes than where there is a greater distance from shore to shore; from our easterly position we suffer severely from the bleak, biting east winds, especially in the spring of the year; and pulmonary diseases, bronchial and throat affections, are very prevalent. Second, the many chemical works in the neighborhood fill the air at times with gases injurious to health. And, lastly, by the direct steam-communication with European ports, and the great number of ships arriving from all parts of the world, we are liable to import epidemics such as the small-pox, which wrought great mischief here in 1871, and it is with great difficulty that the small-pox and other contagious diseases can be eradicated from the narrow, dirty streets to be found along the docks both at Newcastle and Shields. The rate of mortality in the large towns of England, which is published every two weeks, generally places Newcastle in anything but an enviable position, and, as in all crowded cities, the heaviest levies fall upon the poorer classes.

Notwithstanding all this, I question if larger, stronger men can be found in England than those to be seen at the various workshops on the Tyne. It is a fact that the champions of nearly all the athletic exercises of England hail from this district.

The mode of living among the working-classes is not what could be desired; their breakfasts consist of bread and butter with coffee; dinners of cold meat or meat-pies and bread and water; tea, of bread and butter with tea; and supper, of bread and butter, or bread and cheese, with coffee.

Many of them are very improvident and fond of drink; a feast of food and stimulants in the early part of the week, at the expense of an insufficient supply at the end, is very frequently the case among the sons of toil on the Tyne.

Excessive drinking has undoubtedly increased in this district since the short hours and advanced wages have prevailed; and in this opinion I am corroborated by the evidence of several intelligent, discerning workmen, who would have gladly given a different account of their own class had truth not stood in their way.

The new licensing act, I doubt not, will have a most beneficial effect upon people addicted to the excessive use of strong drink. This law provides that all public-houses shall be closed "on Sunday, Christmas Day, and Good Friday, during the whole day before the hour of half past 12 in the afternoon, and between the hours of half past 2 and 6 in the afternoon, and after the hour of 10 at night, and on all other days before the hour of six in the morning and after the hour of 11 at night."

"Any person who sells or exposes for sale, or opens or keeps open any premises for the sale of intoxicating liquors during the time that such premises are directed to be closed by or in pursuance of this section, or during such time as aforesaid allows any intoxicating liquors to be consumed on such premises, shall for the first offense be liable to a penalty not exceeding £10, and for any subsequent offense not exceeding £20."

The benefit that will accrue to the British workman from these prohibitory clauses cannot be overestimated; many of the quarters formerly lost by the engineer through tarrying at the public-house on his way to the shop in the morning will now be saved. After 11 he must turn his face homeward; the penalty of violating the law is too heavy to be trifled with by the keepers of drinking-saloons. More sleep will thus be afforded toward recuperating the strength of both mind and body. The time for indulging is shortened; may we not hope that the resolution of those prone to the immoderate use of the intoxicating beverage be strengthened, their ambition rekindled, and their new hopes, their higher aims, bring sunshine to many a hearth now all but lost in the gloom of despair.

The laboring-classes in this district, especially pitmen, are great fanciers of dogs; while others of more refined taste breed birds of various kinds in large numbers; grow flowers of rare beauty, and under great difficulties, on such a scale as to put the owners of magnificent conservatories to shame. A collier named Thomas Buckham first went

down a coal-pit at the age of fourteen; he worked six years as a boy, and has been a hewer for forty years, during which time he has not averaged 20s. (\$4.84) of a weekly wage; yet this man has competed for prizes at flower-shows for thirty-six years, and has never contested without winning a prize. Last year, fifty prizes, out of fifty-four, were awarded to him at a flower-show held near Newcastle, and this year he carried away forty-nine out of the fifty-four.

A large proportion of the laboring-classes of this district are passionately fond of sports, particularly boat-racing. When a contest takes place, between celebrities, on the Tyne, especially if after working-hours, or on Saturday afternoon, numerous steamers, crowded with anxious spectators, follow the race; while the banks of the river are crowded by thousands of people who have assembled to witness the aquatic strife. Numerous matches for foot-racing, quoit-pitching, bowling, dog-running, shooting, and even singing, come off nearly every week, where the competitors are from the ranks of labor.

The masses on the Tyne have a dialect peculiar to this district alone; its most characteristic feature consists of an inability to pronounce the "r" aright. The sound which they give to this consonant is a kind of combination of the "r" and the "ch" of the Welsh or German. A Scotch girl, engaged as a servant in Newcastle, on being asked how she got along with the language, said that she was enabled to pronounce like the natives by "swallowing the 'r's' and giving them a bit chow i' the middle." This peculiarity is but rarely met among the more educated portion of the inhabitants.

A moderate proportion of the workmen and their families attend places of worship on Sunday, a great majority of whom are Wesleyans.

The people of Tyneside are gruff, outspoken, and impress the stranger as being uncivil; a long residence in their midst proves them to be equitable, generous, and warm-hearted.

EVAN R. JONES,  
*United States Consul.*

#### MINERS WITH SCIENTIFIC TASTES.

The following notices of some miners in the Northumberland and Durham coal-fields, which have been furnished to the author, will be read with interest:

John Simms, West Cranleyton, son of an ingenious miner who died several years ago; his son John works in West Cranleyton colliery, and has worked there from boyhood; he is about forty years of age; works as a heaver of coal. He has made great progress in the study of the fossil and reptile remains of the north coal-districts, and has a very large and good collection. He also works with the microscope and prepares microscopical objects; his preparations of fish-remains are very good. He is interested in butterflies and moths, and his knowledge of local natural history is very creditable.

Joseph Taylor, a workingman, residing at West Cranleyton, is a relative of Mr. Simms by marriage, and his tastes and capacities very similar to those possessed by his brother-in-law. He has a good collection of lower coal-measure fossils; he also mounts objects for the microscope, and he and Mr. Simms both supplied Mr. West the slides for his work on coal-measure paleontology. Mr. Taylor is about forty years of age, and for several years has devoted his leisure hours to paleontology.

John Salt, Newsham colliery, about thirty-three years of age, has made a large collection of coal-measure fishes and labyrinthodont, and has found the largest and best specimens of labyrinthodont that have been found in any part of the world. His collection, gathered by his own hands, was unique. He also made microscopical sections, and he, and the other miners, Simms and Taylor, first possessed very excellent microscopes. They all had good libraries. Mr. Salt has removed to Staffordshire.

David Knight, who was killed by an accident in Dudley colliery, Northumberland, about five years ago, was a very ingenious working miner; he collected fossils, butterflies, &c., and constructed a microscope; ground his own lenses, and fitted up the instrument himself. He also invented a machine for grinding lenses for telescopes and microscopes. He contributed several articles on mathematics to local journals, and was an ingenious and industrious man.

#### THE CONDITION OF THE WORKING-CLASSES OF ENGLAND.

By J. S. STANLEY JAMES.

In the Old World it is not so very long since, indeed it is still true of many parts, "all were born to a fixed social position, and were mostly kept in it by law or interdicted from any means by which they could emerge from it." Sir Henry Maine says

"The movement of the progressive societies has hitherto been a movement from status to contract; that is, from a condition of life in which relations between individuals are determined by membership of families or tribes, or conquering or conquered races, toward a condition of things in which they are dependent upon contracts entered into by individuals." But although society has thus progressed in England, the condition of employer and employed cannot in all cases be fairly called a contract, for the latter is often entirely at the mercy of the former; and in this I must draw the distinction between skilled and unskilled labor, between the farm-laborers of the country and the artisans and mechanics of the town. The condition of the first is dependent upon the laws relating to population and food, and is also considerably affected by the present laws of England; the latter are mostly influenced by the laws of commercial and monetary economy of supply and demand. It will be best, perhaps, to divide the workers of England under several heads.\*

#### I.—THE ENGLISH OPERATIVE.

Not unskilled laborers, yet hardly to be called mechanics, the operatives are a class who have sprung into existence during the present century. The agricultural laborer can perform all the ordinary operations about a farm by using the skill which, without any effort on his part, has gradually accumulated upon him from his boyhood. It has cost him nothing, and all his village companions have about as much of it as he has himself. It is so with laborers in towns; they partake of the stock of common knowledge as they do of light, air, or anything else which is acquired without labor or the equivalent of labor. The population of a mining district grows as it were into the knowledge of mining; in sea-ports into dock-porterage; and in textile-fabric districts into a knowledge of ordinary mill-work; these are the operatives. It is but one hundred and five years since Watt's first patent for the steam-engine was granted, and the application of steam to manufactures is of far more recent date, yet already it has spread all over the world. Many trades are now so subdivided by the use of machinery that the utmost degree of simplicity in manipulation is reached. In large manufactories men are but the feeders of the machine. To a certain extent the operative may, in comparison with the farm-laborer, be called a skilled workman, but by the subdivisions of trade and the use of machinery many mechanics are but masters of one branch of a trade, and being dependent upon the steam-engine are reduced to the status of the operative.

The most numerous body in England, next to the farm-laborers, the operatives are the most miserable. Crowded together in huge workshops, their labor is more unhealthy than that of an agriculturist. Their homes in the large cities are often a disgrace to civilization. If they obtain higher wages than the laborer, the increased cost of living in cities often counterbalances that apparent advantage, and they can save little from their wages. In any case of slackness of trade they suffer miserably. The moral condition of factory-operatives is not good; the employment of young girls and women—ignorant and uneducated as they are in England—unfits them for the duties of domestic life when they marry. In America a girl works in a factory and her employment is considered more respectable than that of a domestic servant. In England it is the reverse; a "factory-girl" is a name of contempt, and domestic servants consider themselves far superior to such.

But operatives suffer from no evil which may not arise in the United States or in any large center in the world. Whatever discontent they may truly feel arises not from political but purely economic grounds. It is a question of supply and demand, and in every branch of labor in England the supply exceeds the demand. Every trade is relatively overstocked; like the trees of a too thickly planted forest, the workers suck the life from each other. The farm-laborers suffer, as I have shown, from a condition of things the result in a great measure of the laws in respect to the land; the other workers of England only from the evils inseparable from the laws regulating capital and labor. Pages might be written showing the miserable social condition of the operatives of England, but *cui bono*? During the last ten years, however, that condition has become greatly improved, and mainly by the exertions of the workers themselves. In many of the large towns, in Lancashire and Yorkshire, the men are joining together and building and working co-operative factories. The "Star" mill at Oldham, which with the machinery cost over half a million dollars, is owned and worked by the operatives.

#### II.—THE MINERS AND IRON-WORKERS OF ENGLAND.

It has been often said, and with much truth, that England's greatness has been built up by the wealth of her mineral resources; that without her coal and iron she would never have gained her proud position among nations. The natural advantages of Great Britain as a maritime country are great; her harbors and great rivers placed her in olden time far ahead of any other nation in that respect. But in later days, and especially since the introduction of steam-power into every branch of industry, the possession of

\* The remarks of Mr. Stanley James on agricultural laborers appear on preceding page.

coal and iron has been the cause of England's commercial prosperity. The coal-fields of England are the centers of the most dense populations. The greatest manufactures are fostered in the immediate neighborhood of her mineral wealth.

In the year 1872 nearly 400,000 males were employed in about 3,000 coal-mines, supporting, it is calculated, one-eighteenth of the total population of Great Britain by coal-mining, and raising 123,386,758 tons of coal—more than half the coal mined in the world. The miner passes his time far away from the light of day and the pure air of heaven. He endures many perils; is in danger from fallings of earth; from waters, which at any moment may flood the mine and drown the workers; from choke-damp and fire-damp. The latter is a foe insidious and deadly, striking without a moment's warning. In some of the old workings in the Black country (the coal-district of Staffordshire) and South Wales, even the most careful precautions known to science and most copious ventilation are useless against this dread foe.

The carelessness of the men themselves conduces a great deal to such accidents. Although naked lights are never carried, the lamp in use being the safety one invented by Sir Humphrey Davy, although their lamps are handed to them locked before they go down the mine, yet, after an explosion, an open lamp lying by the body of some miner often tells the tale of folly. The light given by the lamp, screened as they are by wire-gauze, is very dim, and the men, reckless of their lives and those of their comrades, often pick the locks and work with the naked candles. In 1869, 1,116 lives were lost in coal-mines, being an average of one for every 309 miners and for every 96,777 tons of coal raised. It must be a strong inducement, indeed, to tempt men to a service not only dangerous, but wearisome and disgusting. They work among eternal damp and gloom. In many mines the men work in a regular temperature of eighty degrees; in such the hours of labor are necessarily short. In the deepest coal-mine in England, at Rosebridge, in Lancashire, where the shaft has been sunk over 2,400 feet, the temperature of the earth is ninety-four degrees Fahrenheit.

English miners have always obtained good wages, and they are now earning upwards of £3 a week.

Side by side with the coal-mines of England there will always be found large iron-works. Coal and iron are often found in the same district, but when they are not it is more profitable to transport the iron-ore to the vicinity of the coal-fields than to take the coal to the iron-fields. In the making of iron there is not so much mechanical skill required as strength and power of endurance; machinery does the rest. Iron-workers, like miners, labor hard, ever exposed to great dangers, but win a good reward in the shape of wages. In their social habits I will treat the two as one class. They are rough, ignorant, much given to the British vice of indulgence in strong drink, and often brutal when in their cups. One cause of intemperance is the heavy burden of care and toil. To earn subsistence for themselves and their families they undergo a degree of labor exhausting to the body and injurious to health; in consequence, relief is sought in stimulants, and these men who have the blood of their Anglo-Saxon forefathers in them, renowned in history and song as heavy revellers, have not as yet learned to draw the line at moderation. Another cause of intemperance is the want of self-respect which the present state of society in England induces among the poor and laborious. Society has offered no inducements to the laboring classes to higher or more refined tastes; it has, in fact, said to these men, "You are beneath us; in our eyes but little better than brutes." So, still more degraded and robbed of a powerful protection against low tastes, namely, self-respect, what wonder that these men become brutes in their pleasures. The state of their homes, too, is not enticing, although they are much better lodged than agricultural laborers; still, considering the wages they earn, the houses they inhabit are most wretched ones, deficient in accommodations for comfort and decency. These men, therefore, find in the public house attractions superior to those offered by their homes; ignorant as they are, their pleasures are all sensual ones, and the larger part of their income is spent in meat and drinks.

Sufficient of strong drink is the miners' or iron-workers' desideratum; when that passion is satisfied the love of sport comes uppermost, and in this, physical action and competition are most desired. The miner takes great delight in his own prowess. Too often it may be that he turns his strength upon his helpmate; but in many mining-districts the females, from working on the "pit-bank" at an early age, are a match for their lords. It may be imagined that the miners become a brutal, depraved set of men. Not altogether so. Hard-drinking, hard-fighting lot as they are, debarred from higher aims or tastes, they have yet in them the blood of heroes, and many noble deeds are done by them. Whenever there is an explosion of "fire-damp" there is seldom need to call for volunteers to descend the mine. The men are always ready and willing to go to the rescue of their fellows, although they well know that in fifty cases out of a hundred, the first succeeding party will share the same fate. I have myself seen many cases in which the men have sacrificed their own lives to help others.

The miners of Cornwall and of North Wales work under a different system and form a distinct class. They are employed on piecework, or, as they express it, "bargains." Although they do not now obtain the high wages given to the coal-miners, still, on the

whole, they are perhaps more prosperous. Situated, too, as the copper-mines and slate-quarries are, in the open country, they obtain purer air and cheaper living; still with these, as with the majority of English workers, drunkenness is a great curse. I do not mean to stigmatize the whole working population as drunkards, but statistics show that far too large a proportion of their income is spent on strong drink. While on this subject I may quote the following from Professor Leone Levi's report on "Taxation and the Working-Classes of England:"

"Of the taxes affecting wealth and industry, the working-classes pay but a small amount. *Of the taxes on luxuries, however, the working-classes pay a much larger proportion.* Two-thirds of the duties on spirits, malt, and tobacco, as well as of the license-duties for the sale of the same, amount in all to £21,000,000, out of a total, including the revenue for wine, of £33,700,000; and when we come to the taxes upon necessities, two-thirds of the revenue on tea, the half of that on sugar, and a fair proportion of the taxes on fruit and other custom and excise duties, give a total of £4,250,000 out of a total of £7,950,000. Altogether, about £29,200,000 seem to be the proportion of the imperial taxation falling upon the working-classes, and £38,500,000 the proportion of the middle and higher classes. And it is important to notice, that while the latter pay 42 per cent. of their taxes out of duties on articles of consumption, the working-classes pay as much as 96 per cent. of theirs in this form. In addition to the imperial taxation, however, there are the local taxes, which amount in all to about £25,000,000, a fifth of which may fall on the working-classes, but which, deducting the amount excused, may leave only £4,250,000 as really paid by them. In the aggregate we may take it, that out of £90,000,000 of taxes, imperial and local, £30,000,000 are paid by the working-classes, and £60,000,000 by the middle and higher classes; and for every £1 of taxes the proportion paid by each is about as follows:

<i>Falling on the working-classes.</i>				<i>Falling on the middle and higher classes.</i>			
Spirits .....	£0	7	5	Local taxes, land, houses .....	£0	7	10
Malt .....	0	3	0	Stamps .....	0	3	0
Tobacco .....	0	3	0	Income-tax .....	0	3	0
Local taxes, houses, &c .....	0	2	9	Spirits .....	0	1	10
Tea .....	0	1	5	Malt .....	0	0	9
Sugar .....	0	1	0	Tobacco .....	0	0	9
Licenses .....	0	0	9	Sugar and tea .....	0	1	0
Other taxes .....	0	0	8	Wine .....	0	0	7
				Others .....	0	1	0
	1	0	0				
							1 0 0

"To appreciate properly, however, the real burden of taxation, we must take into account the number and income of the working classes. The relation to their number is easy to calculate, since £30,000,000 of taxation among 21,000,000 of persons gives an average of 28s. 6d. per head, while £60,000,000 among 11,000,000 of the middle and higher classes gives an average of 109s. per head.

The proportion of taxation to expenditure differs enormously with different families and individuals, the provident and the improvident, the temperate and the intemperate, the town laborer and the agricultural laborer paying very different portions of taxes. But it is important to bear in mind that very few of our workmen save much out of their weekly earnings. Assuming an expenditure of £400,000,000, the proportion expended on each article by the working-classes may be approximately stated as follows:

	Per cent.	Amount
Bread .....	15	£60,000,000
Flour .....	5	20,000,000
Meat .....	7½	30,000,000
Butter and cheese .....	5	20,000,000
Sugar, tea, and coffee .....	6	24,000,000
Other articles of food .....	6½	26,000,000
Drink .....	12	48,000,000
Tobacco .....	3	12,000,000
Rent and taxes .....	9	36,000,000
Coal and gas .....	6	24,000,000
Clothing .....	13	52,000,000
Other expenses; education, church or chapel, amusements, doctors' bills, clubs, furniture, &c .....	12	48,000,000
Total .....	100	400,000,000

Twelve per cent. spent on drink is a large proportion; but from my knowledge of the working-classes of England, I am sure that Professor Levi, if anything, rather underestimates that item of their expenditure.

## III.—MECHANICS AND SKILLED TRADESMEN.

All over the world the mechanic is economically in a different position from the laborer, the miner, or the "factory-hand." He has been provided with a trade. Either a premium has been paid for teaching him, or he has, as an apprentice, foregone part of his earnings during the period of pupilage. He has bought something which he intends to sell again; his acquired skill being his stock in trade. In England the mechanic, who works both by his hands and his brain, doing that which machinery does not yet do, is intellectually and morally the superior of the other members of the working class. As already indicated, the introduction of machinery has, in many cases, through the subdivisions of manufacture, reduced many mechanics to the level of operatives. They do not require that skill of hand and eye which an apprenticeship gives. But there are still many trades in which this special skill is required, and in which the steam-engine will always be entirely subordinate to that human skill.

The English mechanic is the superior of the other workers; but in education and social standing, how inferior to the American! His intelligence is mostly confined to his trade; apprenticed at an early age, his only education has been that of the workshop. Outside his trade he is too often ignorant of everything. A small proportion of mechanics may yearly become masters; now and then they become wealthy and enter the ranks of the aristocracy or gentry. Then this ignorance of which I speak shows itself so plainly, and makes the *nouveaux riches* of England notorious throughout the world. In this again, as always, let it be understood that I speak generally. I have seen a Manchester mechanic read Newton's "Principia" in the original. I know a London mechanic well read in Latin and Greek, and who is learning Hebrew in order that he may study the Scriptures in that tongue. But the general ignorance of the workers of England arises from there not having been, until the last two years, any system of national education. The English mechanics I believe to be unsurpassed in the world, but owing to that want of education and the early age at which they are apprenticed, they are, outside their trades, far inferior to the American.

English mechanics do not receive such high wages as miners or iron-workers. Still their work being more regular and there being less risk to life, they are certainly materially better off than any other class of English workers. It would swell this paper to too great a length to go through all the branches of English trades and compare the wages given with those in America. As a rule, however, I find that wages of mechanics in the Eastern States and large cities generally are 100 per cent. higher than in England, and the cost of living does not increase proportionately.\*

This is but a slight sketch of the working-classes of England, but it is drawn from the life, and there is no fact or inference contained therein which is not within my own knowledge. What is the real cause of the poverty and hardships the workers of England endure, and what can be done to alleviate their lot? Socialists attribute this poverty to the constitution of society; political reformers to the form of government; theologians, perchance, as a punishment of original sin. But the real cause is not on the surface. The farm-laborer suffers certainly from a condition of things entailed upon him by the land-laws of England. He shares with the other workers in the want of a good national system of education, and in the hard barriers of class-distinction which, keeping the workman in a subservient position as one of the "lower order," prevents him from having that personal self-respect which is such a help and safeguard through life. But above all these are the laws of nature and political economy. The population of England has increased faster than its production of food; her laborers faster than her capital. England now shows larger profits, higher wages, more soaring business, and greater luxury among the employers of labor; and yet in spite of higher wages the working-classes can only reach a certain low level of comfort. The competition existing in an overstocked labor-market keeps wages at a certain limit, and if they have risen, it is mainly owing to the influence of the trades unions, and the cost of living has risen in proportion. But supply and demand rules everything, and the trades unions cannot overcome economic laws. My theory may be objected to by many, but I hold that every trade, business, or profession is lamentably overstocked in England. Where is the outlet? But a few miles of water and the United States, the true "Greater Britain," is reached. America opens her arms to all the world, but should especially welcome those of her kindred, the race of the men who landed on Plymouth Rock and founded the plantations of Virginia, Maryland, and Pennsylvania.

J. S. STANLEY JAMES.

LONDON, January 31, 1874.

\* For example, a mechanic in London will receive 30s. a week, (I take a high average.) If a single man he will have to pay at least 15s. one-half his income, for his board. In America the same mechanic will receive \$15 a week, and will pay for his board \$3, one-third of his income, and live twice as well as his English compeer. Throughout all the handicraft trades I find this difference between wages and living in England and America.



# • LORD ROSEBERRY ON IMPROVING THE CONDITION OF THE WORKING-CLASSES.

At a meeting of the Social Science Congress, held at Glasgow, in October, 1874, the president, Lord Rosebery, made an extended address in which he directed his remarks almost exclusively to an exposition of what he considered the best means of improving the condition of the working-classes. Foremost among these means he places education. Education and enlightenment, he says, are required to keep pace with the material prosperity of the country. But the education of experience is also valuable—as much so as superior culture. It is requisite that the working-classes should understand the injurious effects of strikes and collisions with their employers, and that employers should recognize the claims of their workmen to their kindness and forbearance. He favors compulsory education, also, as a means of lessening habits of drunkenness. The statistics of national thirst are not very attractive topics so long as revenue considerations are suffered to obscure every other, and it is unfortunately true that among a large section of the population increased prosperity seems to mean increased drink, or, as he sarcastically puts it, “the outward signs of our civilization are an extraordinary accumulation of wealth and an extraordinary consumption of alcohol.” But an increase of culture by no means implies an increase of sobriety.

He reviews the physical questions which so materially concern the welfare of the working-classes—their dwellings, their hours of labor in factories, especially as regards women and children, and the good aspects of union and co-operation. He says:

It is true that unions among work-people, with a view to the artificial raising of their wages, may hamper production, and harshly control freedom of action. On the other hand, they have often been of real service by promoting intelligent communication between work-people in different parts of the country, and in ascertaining the due recompense of labor. Few impartial persons will be disposed to deny that, though it has caused bitter feelings on both sides, as all such revolutions must, the great social movement which has recently united the English peasantry is likely to diffuse enlightenment, to encourage independence, and to place wages on a more clear and rational footing. The natural adjustment of the right proportion between the profits of capital and the wages of labor is a tolerably sure, it may be, but certainly a very slow process, and union among workmen has had a beneficial effect in hastening it. Strikes, which cause so much distress, and which so greatly hinder production, we must lament. But so long as capital and labor continue distinct and opposing interests, is it likely that strikes will be rare? Co-operation, indeed, is the obvious remedy for all these troubles; but co-operation can hardly, so far, be considered a success in this country. It appears to require a more general intelligence and a greater accumulation of capital among the working-classes than exists at present.

There is so much to be done; our civilization is so little removed from barbarism. At this moment there is a daily column in the newspapers devoted to recording brutal outrages, where human beings have behaved like wild beasts. Every policeman in London is assaulted on an average about once in two years. Within the memory of living men the workers at the salt-pans of Joppa, only a mile or two from Edinburgh, were serfs—*adscripti glebæ*—and sold along with the lands on which they dwelt. Neither they nor their children could move from the spot, or could alter their calling. The late lord provost of Edinburgh, who bears the honored name of Chambers, records his having talked to such men. What a hell, too, was described to Lord Ashley's commission of 1842. In the mines were women and children employed as beasts, dragging trucks on all fours, pursuing in fetid tunnels the degraded tasks which no mere animal could be found to undertake. We know that equal horrors existed in the brick-fields two or three years ago, when there were 30,000 children employed, looking like moving masses of the clay they bore, whose ages varied from three and a half years to seventeen, and when an average case was thus described: “I had a child weighed very recently, and though he was somewhat over eight years old, he weighed but 52½ pounds, and was employed carrying 43 pounds of clay on his head an average distance of fifteen miles daily, and worked seventy-three hours a week. This is only an average

case of what many poor children are doing in England at the present time, and we need not wonder at their stunted and haggard appearance, when we take into account the tender age at which they are sent to their Egyptian tasks." Then again: "All goodness and purity seems to become stamped out of these people, and were I to relate," says a witness, who worked himself in the brick-fields, "what could be related, the whole country would become sickened and horrified."

## IRELAND.

*Letter from Mr. Consul King on the condition of the working-people of the Dublin consular district.*

CONSULATE OF THE UNITED STATES,  
*Dublin, November 24, 1873.*

DEAR SIR:

First, as to the condition of the working-people in this district. In all or nearly all branches of labor wages are greatly higher than they formerly were, and I do not think that the cost of living has advanced proportionately. Bread is slightly dearer, but meat, sugar, and tea, and even oatmeal, can be had for nearly the same as before the advance in wages. I have never seen people of the laboring class, or perhaps I should say of the manual-laboring class, so badly clothed as here. Even in cases where necessity does not compel such carelessness, ragged or curiously-patched garments are not uncommon, yet clothes are really quite cheap here, even when compared with prices current ten years ago on the European continent.

House-rent is low, and I think has not advanced greatly for some time, but I think the working-people pay more for rents than they formerly did. Dublin is full of fine old houses, formerly the abodes of the courtly or wealthy, but now abandoned by fashion. Until recently, and even still to a certain degree, the better portion of these houses were chiefly occupied by clerks or people of that respectable class with low fixed incomes. Within the past few years, great numbers of small houses have been built on all the outskirts of the city, and have been occupied chiefly by persons of this class, and the apartments formerly used by them have been taken possession of by the manual-laboring class in addition to what they had before, thus greatly improving the condition of their lodgings. At least this is my opinion, founded partly on isolated instances which have come under my own observation, but chiefly on the fact that large numbers of new small houses have been built in the city while the population has not increased. I do not think that landlords generally keep their houses in as good condition as they ought, and I have been told that the reason for this is the defective nature of very many of the titles and consequent danger to holders or improvers of city property. The Irish land-act has never been extended to the cities, which I consider it would greatly benefit, as it seems to have done the country districts.

Secondly, in regard to drunkenness: On this I was unable to give an opinion of any value, and, consequently, appealed to that eminent Irish statistician, Dr. Neilson Hancock, who kindly gave me the benefit of his observations. In his opinion, Irish laborers, when compared with English or Scotch, may be called industrious. In my own opinion an English laborer will get drunk at night and go to work as usual next day, while the Irishman will not work the day after a debauch. According to Doctor Hancock's statistics drunkenness throughout Ireland is less prevalent than it was ten years ago; and he thinks there is not more of it here than in England, though in Ireland the number of arrests is greater, which fact is accounted for, the doctor thinks, by the facts that there are more policemen here, and that they are under government control, while the English police are local, and, consequently, are more wary when making arrests of tax-payers.

I have also received your letter of the 31st ultimo, and, in compliance with your request, have been to see Mr. Pim. I have also again tried to secure some statistics from Mr. Guinness, and have, in both cases, met with courteous promises, but, as yet, nothing has resulted.

WILSON KING,  
*United States Consul.*

Dr. EDWARD YOUNG,  
*Chief of the Bureau of Statistics.*

## ADVANCE OF TEMPERANCE PRINCIPLES.

On this subject Mr. Consul Webster, under date of March 26, 1873, writes as follows:

The cause of temperance is, I am quite sure, advancing. The results of the earlier closing of public houses are seen to be good. "The Good Templars" organization is growing

very rapidly, and is drawing in many who have been hard drinkers. And, moreover, we are coming to that stage when the better sort of drinkers feel called upon to excuse themselves by saying that their physician advises it, &c.

Sobriety is to be commended and its absence deplored among all classes, especially among railroad employes, to whom the lives of the traveling public are intrusted. But it may be doubted whether much benefit will result from the following instance of—

#### ENFORCED TEMPERANCE OF RAILROAD EMPLOYÉS.

It is stated that Superintendent Angell, of the European and North American Railway, has sent to all the employes of the road a form of pledge for them to sign, whereby they agree to abstain from using intoxicating liquors as a beverage, and the use of profane or ungentelemanly language. Accompanying the blank pledge is a circular informing the employes that this step is taken in consequence of frequent complaints at the office, and requesting those declining to sign to give notice of their intentions, that their places may be filled by others.

#### ▲ SANITARY STRIKE.

A strike with a novel object is reported as having occurred at the Trenton collieries, Durham, the miners having struck for water and decency. They allege that their sufferings, owing to a want of water both for drinking and for domestic purposes, have been very considerable, and that their complaints receive no attention. Acts of Parliament and orders of the local government board are stated to be, as far as they are concerned, mere dead letters; and the men, who with their families number about 3,000 persons, refuse to do any more work until they are provided with a proper water-supply, and with decent dwelling accommodation. The neglect which has characterized some of the Durham colliery districts is but too well known, and although in some isolated localities excellent dwelling accommodations and every necessary sanitary requirement are provided for the colliers, there are many places in which such a thing as a closet is unknown, and where none but the filthiest water can be procured unless it is sought at a considerable distance. This strike at least has our sympathy, and we trust that it will teach some of the wealthy colliery-owners a lesson in sanitary administration.—*The Sanitary Record*.

#### THRIFT AMONG THE WORKING CLASSES IN THE TEXTILE DISTRICTS.

[From the report of the Inspector of Factories, 1874.]

Want of thrift has hitherto been considered one of the great faults of the operative class, and therefore one hails with pleasure any institution which tends to foster among them a more provident and careful character.

The establishment of penny-banks as connected with schools and churches in the poorer parts of some of our manufacturing districts, is doing much to promote saving habits among our working classes, and I am glad to find, after making careful inquiry, that such institutions have largely increased of late years, and are much patronized by those for whose good they are established.

I annex a deposit-book of one of these institutions situated in a crowded factory district of Manchester; and also a notice which has been circulated in the factories and workshops of the neighborhood. The book gives the rules pertaining to the management of the institution. I am informed that during the past year the number of depositors in this bank was over 400.

I should like to see such institutions established in connection with all our large factories and workshops, especially where married women are employed. And I think the following remarks on one I have lately come across will show the good they may produce:

Some time since, on going through one of our largest cotton-mills in Salford, I observed by a notice hung on the walls that a penny savings-bank in connection with the works had been established, where sums of from one penny to £10 are received from the work-people, and interest at the rate of 5 per cent. given on sums over 10s., the firm having consented to guarantee the amounts invested. The notice went on to say, "those of our hands that have not begun to save are reminded that although trade is rather good at present it may not always remain so, and they are earnestly requested to avail themselves of the opportunity to provide for less prosperous times."

On making inquiry, I found that this call had been fairly responded to by the hands employed. This mill gives employment to upward of 800 hands, of whom above 500 are females.

The sums deposited weekly vary from 6d. to 5s. This institution, besides promoting saving habits among the work-people generally, is a great boon to the married women, and is taken much advantage of by them. It acts to them as a kind of lying-in club, where, many months before the birth of her infant, the mother can make a little provision for the event by laying aside a small sum weekly unknown to her husband, and without his being able to meddle with it. This enables her not only to meet the time with more comfort around her, but also does away with the necessity of her returning to her work in the factory so soon after her confinement; thus saving her own health and giving a better chance to the infant of surviving future hardships.

The deposits in this factory-bank were in 1873, £70 4s. 10d.; withdrawals, £58 4s. 1d.; number of depositors, 63; accounts open 31st December, 23.

#### HOMES FOR THE POOR.

[From the New York Times, February 23, 1875.]

An interesting debate occurred in the English House of Commons on February 8 upon a subject which is of deep interest to all civilized countries—the improvement of the dwellings of the working classes. Mr. Cross, in behalf of the government, presented a bill which would go far toward remedying the evils resulting from overcrowding in English large towns and cities. In his able speech advocating the bill, he indirectly showed how much has already been accomplished in this great reform. The "Peabody fund" controls a capital of \$3,000,000, entirely devoted to building improved dwellings for the poor. Two other societies have expended \$1,500,000 each for similar objects; other associations have also accomplished much, so that thirty thousand of the poor of London are now housed in well-ventilated, healthy, and scientifically arranged buildings. The remarkable sanitary influence of these "model houses" is shown by the fact that the death-rate in the lowest districts of Manchester, Liverpool, and London will run up to sixty or seventy per thousand, and in one instance has attained the fearful maximum of seven hundred per thousand, while the death-rate in the "model lodging-houses" is never over fifteen per thousand. The effect of these buildings in preserving the lives of young children is equally remarkable. Thus, in Liverpool, the annual rate of mortality of children under one year amounts to thirty in one hundred living, while in the model houses it seldom amounts to eighteen. In one district of Manchester, out of a hundred deaths of persons of all ages, the deaths of children under five years reached the extraordinary rate of 49.7, or nearly one half. Yet in these improved buildings they seldom reach the ratio of twenty.

Various cities of England have already had special acts passed to enable them to improve the poor-quarters. Thus, in Liverpool, under these acts, the corporation has demolished 503 houses, and improved 392 "courts," at an expense of \$438,000. Edinburgh has also spent a large sum, and cleaned out some 1,400 houses. Many nests of crime were broken up, and the police reported a falling off of the number of serious offenses from 670 to 570 in one year. At Glasgow about \$9,000,000 was expended, but much of this has been returned to the corporation from the sale of the property which has been improved. The experience of all these cities has been that the breaking up of all these fever-nests and dens of crime produced no hardship to the poor people who were turned out. They always found quarters elsewhere, and many were induced to transfer themselves to the country. It often happened, too, that where improved buildings were erected more people were accommodated over a given space of ground, but under much better sanitary conditions, so that the same district could accommodate as many poor as before the improvements, and yet save forty or fifty lives among every thousand of the inhabitants.

The new law which is proposed in the English Parliament allows the corporations of the large cities to break up poor-quarters, open streets, demolish houses which have become infected with fever, and make various improvements which have sanitary objects. The secretary of state himself will have the power of urging the "order" necessary through the house of commons, so as to save the town councils much expense. The cost of the improvements will, of course, be laid upon the tax-payers. It is not proposed, however, that the town councils should at once build "model lodging-houses," but that they should endeavor to entice the floating capital of the country to investments in these improvements. In case, however, the land is left to run to waste, the local authority has the power to build, in special cases, with the consent of the secretary of state.

#### HOUSES FOR THE WORKING-CLASSES.

[From a report on the sanitary condition of the city of Edinburgh.]

The condition of the poor and their miserable dwellings also engaged the attention of the charitable in Edinburgh, and the movement which originated in London, for erecting suitable houses for the working-classes, extended to this city. In 1851, the first block of houses was built, and named Ashley Buildings, after the nobleman who

had taken such a prominent part in the operations of the metropolitan association. No better site could have been obtained for the structure in question. It was placed in the town district, in which overcrowding prevails to a great extent, and on all sides it was surrounded by decaying houses, tenanted by the poor. It not only afforded to the industrious workman a greatly-improved habitation, but from its situation formed an example to surrounding proprietors and tenants of the manner in which such houses should be built and kept in a permanent state of cleanliness. To secure a site old property had to be removed, and thus, while benefitting the working-classes, the association directly ameliorated the condition of the old town by the erection of houses in its midst built according to the most approved sanitary plans.

#### A WORKMAN'S TOWN.

[From the London Times of August 5, 1872.]

Lord Shaftesbury recently laid the first stone upon an estate at Wandsworth, called the Shaftesbury Park Estate, which has been acquired by the Artisans, Laborers and General Dwellings' Company, (limited,) and is to be laid out as a workman's city, in 1,200 dwellings. The company was formed in 1867, in consequence of the destruction of houses by railroads and other improvements, for the purpose of enabling working-men to erect dwellings combining fitness and economy with the latest sanitary improvements, and to become themselves the owners of these dwellings in the course of a stated number of years by the payment of a small additional rent. On every estate purchased by the company a suitable space will be reserved as a recreation-ground, a co-operative store will be built for the especial benefit of the tenants, and *public houses will be absolutely forbidden.*

The Shaftesbury Park Estate contains about forty acres, and is situated between the Wandsworth road and the Southwestern Railway, and about half way between the Wandsworth road and the Clapham Junction Stations; and a new station on the London, Chatham and Dover Railway forms part of the architect's design for the future buildings, so as to afford to the inhabitants of the projected "city" all necessary facilities for going to and returning from their labor. The houses are to be thoroughly drained, constructed on sound principles, and with good materials, and well supplied with water. Ample school accommodations will be provided, and a hall for lectures or public meetings will be built. The houses are to be of three kinds, for the accommodation not only of artisans, but also of the "clerk-class;" and each house is to form a distinct and separate tenancy, fitted with every sanitary and domestic convenience.

At the appointed time a large concourse of people had assembled to witness the ceremony of laying the first or "memorial" stone. Lord Shaftesbury arrived punctually at the time appointed, and Mr. Walton, the chairman of the company, opened the proceedings by some introductory remarks, in the course of which he paid a warm tribute to Lord Shaftesbury's consistent endeavors to elevate the working-classes in the scale of civilization and humanity. His lordship then took the trowel and mullet, and laid the stone with the skill and self-possession of a finished workman. Having pronounced it truly laid, his lordship then addressed the assembly. He said:

"MY GOOD FRIENDS: Having laid the first stone of this noble experiment, an experiment which seems to me deserving of the most unqualified success, I cannot separate from you without a few words of thankfulness and congratulation that we have met to-day for such a worthy purpose. We have founded this day a workmen's city, and we have founded it upon the very best principles. We have founded it upon the great principle of self-help, and upon the great principle of independence. By independence, I mean without any other assistance than that which every man has a right to receive from his fellow-man, sympathy and kind aid, and that is what every man, either great or small, stands in need of from another. You have founded the workmen's city upon your own efforts, and by your own contributions, and for the great and wise purpose of advancing your social position and bodily health, as well as your intellect and general prosperity. And most heartily do I say for myself, and I also say it in the names of hundreds and thousands of your fellow-men, that the blessing of Almighty God will rest upon the good work which you have inaugurated to-day. I like the principles you have laid down for your guidance. *You have shown your wisdom in a moral point of view by excluding public houses and the tap-room; and you have done with them as the people did of old by the lepers, you have put them outside the camp.* You have, too, founded the buildings with a due regard to the necessary arrangements. There are schools for the children, and will also be a library and reading-room for yourselves, and a club-room, where you will have the advantage of indulging in beneficial amusements. I hope, however, you will not forget the women, who are by far the best part of you, let me tell you. In those intellectual amusements take care that your good wives and daughters are not excluded, for you will find there is no social progress without the aid of the female sex. If the woman floats, she floats like a cork, and drags the man after her. I am glad, then, to say that you have inaugurated this workmen's city upon a sound and wise basis, and also that every man shall have his house to himself, so as

to fulfill the national saying that an Englishman's house should be his castle, and to maintain the great principle that the working-man should be the master of his house, and the happy head of a moral and industrious family. I would urge you most sincerely, as long as you have breath, to hold fast to the great social family relations of life. That will be the first step in the prosperity of your city, and it is the grand security of empires. I am delighted, too, to find that you have established a recreation-ground in the center of your city for the healthy enjoyment of your children; but I would strongly urge you not to devote this space to flower-beds and gravel-walks, but to leave it free for cricket, for foot-ball, and for all those manly and exhilarating games by which the healthy development of the body may be promoted and secured. The schools which will be established I hope will be turned to good account, and thus save your children from the temptation of the pot-house and 'penny-gaff.' More mischief is done in London by children frequenting such places than many people are aware of. You cannot do better than look to your children, and see them properly educated, because in early life lasting impressions are made. A child eight years of age will retain early impressions, which will never, while life lasts, be wholly effaced. A good, tender, pious mother will make impressions on her child which may for a time leave it in manhood, but which will sooner or later return." His lordship then alluded to the impressions created by the culture of flowers and window-gardening, and then passed on to picture the wretched and ill-ventilated homes of some of those who were compelled to dwell in the midst of the metropolis. He said: "Imagine a young man, about twenty years of age, in the prime of life, coming up from the country to seek work in London. He may obtain, perhaps, as much as 35s. per week. As a matter of necessity he takes, as it were, the first place he can get. The place is ill-drained and badly ventilated. He lives, perhaps, over a pestilential stream, and in a few months he is numbered with the dead, and his wife and family come upon the parish for assistance. There is nothing so economical as humanity. Whatever it may cost at the outset, good air, good water, and no overcrowding in close, noisome rooms, will be found the most economical and best means of developing the physical and moral energies which God has given to you. The domiciliary condition of the people involves health, comfort, and happiness. It involves also contentment, and people who are contented always give a government less trouble than those who are not. When men are contented they become excessively reasonable, and employer and employed find that their interests are identical. They must hold together, and by united action give force to progress. I should like, then, to see, from the Queen upon the throne to the lowest in the land, one feeling of united sympathy of action, and one and all give 'a long pull, a strong pull, and a pull altogether.' I can only say that I have been delighted beyond measure at what I have seen to-day. For more than thirty years I have been engaged in advocating improvement in the domiciliary condition of the people, but it is not by charitable means that the work can be effected. It must be done by the exertion of your own hearts and hands. You must say, 'We are Christians, and will live like men.' I trust that this will be the commencement of a great work, destined for the advancement of the social position of the people." In conclusion, his lordship said he felt an honor had been conferred upon him by being invited to attend that highly-interesting gathering. He said that a library was to be established in connection with the school; and, as a memorial of the day, he hoped the committee would allow him to be the donor of the first book. The book he should give would be 'The Homes without Hands,' a wonderfully interesting account of the way in which creatures not provided with hands were enabled, by the instincts which God had given them, to provide themselves with safe and healthy habitations. He selected it not only for the sake of the information to be derived from it, but also for the sake of the reflections that it was calculated to suggest. He hoped when the city on which they were then engaged was completed, when every man was sitting under his own vine and his own fig-tree, enjoying the blessings which God had given him, that their thoughts would be called to another place, in which he trusted he should some day meet them—to a home without hands, eternal in the heavens."

## BENEFICENT MANUFACTURERS.

In the preceding part of this chapter attention was called to the condition of the tenements occupied by a large portion of the laboring-classes, and the opinion was expressed that the drinking habits so common among them were aggravated by the want of comfortable homes. It was alleged, at least by implication, that upon mill and factory owners rested a considerable share of the responsibility for the intemperance and degradation of the working-classes in manufacturing towns. In the early part of this investigation the author discovered the chief

cause of this deplorable condition, and suggested a remedy to some of the proprietors of large industrial establishments. On reaching the West Riding of Yorkshire, especially the town of Bradford, the gratifying fact was ascertained that the benevolence of some of the wealthy and large-hearted mill-owners had already been directed into that channel. The most noteworthy instance was that of Sir Titus Salt, whose alpaca-works at Saltaire, as a first-class industrial establishment, deserves especial mention, but whose beneficent and successful enterprise for the welfare of his work-people entitles him to a place in the very front rank of philanthropists. In well-directed efforts for the promotion of the best interests of laborers "many have done wisely," but in practical benevolence "he has excelled them all." It is eminently proper, therefore, that, in a chapter on the condition of the working-classes of Great Britain, special mention should be made of—

#### SALTAIRE AND ITS FOUNDER.

It has already been intimated that no account of the worsted-trade of Bradford would be complete without a notice of Sir Titus Salt, who, if not the first to engage in the production of worsted goods, was the first to manufacture the wool from the alpaca sheep. This beginning, in 1836, proved so successful, that in 1852 the importation of this wool had reached 2,186,480 pounds, and the price consequently advanced from 10d. per pound in 1836 to 2s. 6d. in 1852. There were in Bradford and its suburbs, in the year 1850, 194 mills.

Mr. Salt might have retired from business and enjoyed his well-earned wealth, but he chose to go on, not only to help his large family, but also *to improve the condition of the factory operatives*. How successfully this determination was carried out, the following statement, condensed from an extended account by a local writer, will prove:

Bradford, with its still-increasing manufactures, was becoming overcrowded, dirty, and smoky; its streams and canal were every year becoming more and more sinks of filth and pollution, and hot-beds of foul diseases, and Mr. Salt wisely determined to be no party to its further increase. Seeing a better spot on the banks of the river Aire, and purchasing a tract of land there, he at once began to erect such a palace of industry as England had never seen, with dwellings for the work-people contiguous. In 1853 these works were opened by a banquet of unusual magnificence, attended not only by the lord-lieutenant, members of Parliament, magistrates, mayors, and other civic dignitaries, but by the work-people of Mr. Salt, who, to the number of 2,500, marched in procession from his mills to the railway-station at Bradford, and were conveyed by a special train to the works.

The mills, warehouses and sheds, dye-houses, and gas-works at Saltaire occupy an area of 9½ acres. The principal building, six stories high, distinguished in many respects for architectural elegance above all other works of the kind, is built of light-colored stone in the Italian style of architecture, and is computed to cover over 9 acres, including the warehouses, stables, and dining-hall, while the floors in the several buildings cover an extent of 11½ acres, or 55,000 yards. The walls of the building are of extraordinary thickness, and, in truth, more resemble the castles of ancient times than a building for the exclusive purposes of peaceful industry. The south front of the mill—545 feet in length and 72 feet above the level of the rails—has a very commanding and beautiful appearance. The floors are based upon arches of hollow brick, supported by long rows of highly ornamented cast-iron columns and massive cast-iron beams. The roof is of iron, and the windows are large and formed of immense squares of plate-glass, a fact which alone proves that everything has been done to render the building attractive and comfortable for those employed.

The warehouses, which run northward from the center of the great front line and terminate at the canal, are 330 feet in length. The ground slopes downward to the canal, so that that end of the warehouses rises 90 feet from the level of the water, or 18 feet higher than the principal front.

These magnificent sheds are roofed with sloping skylights, through which the light is more directly and uniformly diffused than by side windows. In the western side are also rooms for sorting, washing, and drying wools, and for reeling and packing. Bo-

neath it is an enormous tank or reservoir, and filter, with 500,000 gallons of water, into which, through a number of conduits, the rain is carried, and, when filtered, applied to the process of the manufacture.

On the top of the warehouses a large iron tank is placed, capable of holding 70,000 gallons of water, drawn by engine from the river, available in case of fire; though, in truth, as the whole of the buildings are fire-proof and roofed with iron, we trust that, for the latter purpose, it will never be required.

The cottages are built of stone, lined with brick-work, and contain a parlor or living-room, a kitchen, a pantry and cellar, and three bed-rooms. Some of the houses are designed for larger families and others for boarding-houses. Each house has a separate yard, a privy, a coal-place, and ash-pit. These houses are fitted up with all the modern appliances of comfort, are well ventilated, and have small plats of ground for a garden in front, with borders of plants and flower-beds.

The baths and wash-houses contain plunge-baths, warm baths, and Turkish and douche baths, washing, rinsing, and steam tubs, drying closets, hydro-extractors, mangles, and other requisites. The charges made are little more than nominal.

A literary and philosophical institution, with a museum, lecture-hall, and classrooms, is designed.

The almshouses consist of forty-five beautiful buildings, for the accommodation of the aged and infirm of Saltaire, and are capable of holding sixty persons. These almshouses, resembling Italian villas, are supplied with everything required by the poor for whom they are intended: ovens, boilers, and pantries. Generally the rooms are on the ground-floor, but some of them have chambers and bed-rooms above. In front are asphalt-walks and green parterres and flower-beds, while underneath the windows are open spaces, where the honeysuckle, the rose, and the sweetbrier may be trained and cultivated.

The occupants of the almshouses are men or women, single or married, of good character, destitute of means of support, and incapacitated by reason of age or infirmity so as to be unable to earn their living. Each married occupant shall receive a weekly allowance of ten shillings, and each single person seven shillings and sixpence, in addition to rooms free of rent and taxes, and this allowance to continue after the death of the founder. If any inmate shall marry, or willfully disobey any of the rules of the institution, or be guilty of insobriety or immoral conduct, or, by failing to improve in condition, shall have ceased to be a proper beneficiary, the founder or trustees will displace or remove such person.

The social and moral condition of the inhabitants of Saltaire is superior. There are, certainly, some improvident families, who never better their condition because they never attempt it. Those who are industrious have their reward in well-furnished and well-appointed homes, and several have, with their weekly earnings, bought or built cottages.

The Saltaire factory-schools, erected by order of Sir Titus, were opened in 1868. Whatever art could invent or money buy has been brought together here, and every possible aid has been employed to promote education. The school-rooms are lofty, well lighted and ventilated, and the building heated throughout with hot water. The boys' play-ground is provided with gymnastic appliances.

In the year 1858-'59 Sir Titus caused a beautiful Congregational church to be erected at his sole expense, which was opened in April, 1859. A neat and chaste little chapel (Wesleyan) has also been built and fitted up with exquisite taste for the use of the inmates of the almshouses.

An infirmary has also been built, where medicine is dispensed, and where any accidents which may happen at the works are attended to by a competent surgeon.

The Saltaire park, covering fourteen acres, contains sufficient room and all needful appliances for recreation; and in its arrangement the tastes of all in the way of open-air amusements have been carefully consulted, not forgetting provision for boating and for the national game, cricket. Among the regulations made for the government of the park are the following: Intoxicated persons not allowed to remain; children under the age of eight years not admitted except in care of an adult; dogs not admitted unless led; no music, singing, preaching, lecture, or public discussion, and no meeting for the purpose of making any religious or political demonstration, will be allowed without the written sanction of the firm; stone-throwing, disorderly and indecorous conduct, profane and indecent language, gambling, pitch and toss, and soliciting alms are strictly prohibited; no wine, beer, spirits, or intoxicating drinks are to be consumed in the park; smoking is not allowed in the alcoves, nor spitting on the paths; the play-grounds are not to be used on Sundays.



## CROSSLEY ORPHAN HOME AND SCHOOL, HALIFAX, YORKSHIRE.

This orphan asylum, founded by the three brothers, John, Joseph, and Sir Francis Crossley, Bart., M. P., was opened for the reception of children on the 29th of June, 1864, on which day six boys were admitted. The admissions in the early years of the institution were as follows: In 1864, 8; in 1865, 59; in 1866, 67; in 1867, 62; in 1868, 10; first half of 1869, 19; in all, 225 children, consisting of 150 boys and 75 girls, of whom 50 were motherless as well as fatherless. The numbers in the Home on the 30th of June, 1869, were 188; of whom 122 were boys and 66 girls.

The founders having given a preference to orphans born in the county of York, 128 Yorkshire children have already been admitted, of whom 50 are natives of the parish of Halifax.

In the election of children the founders have also given a preference to those belonging to families whose temporal circumstances have been reduced; and it will, doubtless, be interesting to know the profession of some of the parents of the children received: 63 are the children of master tradesmen; 45 of shop-men, mechanics, and others; 26 of ministers and missionaries; 17 of law, bank, and commercial clerks; 11 of civil engineers, architects, and surveyors; 9 of physicians and surgeons; 9 of merchants and commission-agents; 8 of commercial travelers and salesmen; 7 of master mariners, pilots, and fishermen; 5 of railway officials; 5 of farmers; 5 of accountants; 4 of barristers and solicitors; 4 of manufacturers; 4 of school-masters; and 3 of ship-brokers.

The applications received on behalf of these children were only entertained after the most careful investigation, and many of the cases were of a peculiarly painful character. The following particulars regarding three of them abundantly illustrate the value and urgent need of a Home for Orphan Children:

(A.) The skill and taste of this girl's father (a master cutler) assured every one that in a few years he would be second to no firm in the town. In six years the number of his workmen increased from 3 or 4 to about 200; but in 1862, while attending the Exhibition in London, he was seized with insanity. Shortly after he was removed to an asylum, where he died, leaving a widow and five children.

(B.) Two boys, the children of a Baptist minister, who died of typhus fever, caught in ministering to a fever patient who had desired his services. These boys have no male relative.

(G.) This boy's father was a man of high honor and great ability. Having spent several years in England and Spain in the pursuit of his profession as civil engineer, he was induced to assume the heavier responsibilities of a contractor, in which he was for some time very successful. He embarked all his large capital in the carrying out of a contract for extensive water-works in Ireland, which proved ruinous. He met his death in the prime of life from an accidental fall, leaving a widow and thirteen children wholly unprovided for.

The education afforded is regulated by the capacities of the children. All the inmates are taught reading, writing, arithmetic, English grammar, and composition, geography, singing, drawing, and the rudiments of natural science. Those boys who show capacity for such studies are taught Latin and one modern language, also the higher branches of arithmetic, algebra, and geometry. The girls are taught needle-work and such departments of household service as are likely to prove useful to them in after life. Both boys and girls are so trained as to fit them for fighting the battle of life courageously.

In addition to the building and furnishing of the Home, at a cost of £56,000, the founders have provided an endowment of £3,000 per annum toward the cost of maintenance and education.

## SIR FRANCIS CROSSLEY'S BENEFACTIONS.

*"The people's park,"* covering a little over thirteen acres, laid out by Sir Joseph Paxton, with fountains, waterfalls, lake, and furnished with several large statues in Carrara marble. Original cost, £32,000. On its completion, in 1857, conveyed to the Halifax corporation as trustees for the town, and subsequently endowed to the extent of £6,000, thereby meeting the expenses of gardening, repairs, &c., without any charge on the town's rates.

*Twenty-two almshouses.*—Style of building somewhat similar to Mr. Joseph Crossley's almshouses, and the rate of payment to alms-people the same. The endowment by the founder yields £500 per annum.

*Assistance to young and needy tradesmen.*—Sir Francis conveyed to the corporation a sum of £10,000, to be held in trust, and to be lent out in sums of varying amount to Halifax tradesmen, for a period of years, and repayable without interest.

## JOSEPH CROSSLEY'S BENEFACTION.

*Forty-eight almshouses,* forming, with chapel, three sides of a quadrangle, the center being laid out as a garden. The style of architecture Gothic, the houses stone-built and pitch-faced. Cost of land and buildings about £25,000. A weekly dole of 10s. is paid to each married alms-man, and 7s. to each unmarried alms-man or alms-woman. The entire charges on the charity are fully provided for by the founder by endowments amounting to £1,275 per annum.

## SIR JOSEPH WHITWORTH.

The benevolent effort of this eminent engineer has been directed into another channel—the encouragement of young men who have a taste for mechanical engineering, as appears from the following extract from an English journal :

## WHITWORTH EXHIBITIONS.

Sir Joseph Whitworth, wishing to encourage young men having a mechanical instinct, and who are already possessed of some degree of manual dexterity in the use of tools, proposes to found, in connection with Owen's College, Manchester; King's College, London; and University College, London, a certain number of Whitworth Exhibitions, in order to fit them better to become candidates for the Whitworth scholarship. The competition for these exhibitions is to be as follows: Candidates, not less than sixteen nor more than eighteen years of age, pass a preliminary qualifying examination in English dictation and composition, arithmetic as far as decimals, and the elements of mechanical drawing, at the commencement of the academical year of each college; undergo a practical examination in the use of tools, to be held at each college or elsewhere. This examination is to include at least two of the following handicrafts: filing and fitting, turning, smith's work, pattern-making, and molding.

The successful competitors for the exhibitions will be entitled to receive, during the two years next following the examination, instruction in all such subjects (being part of the course of each college) as shall better prepare them for the Whitworth Scholarship Examination, viz: practical plane and solid geometry, machine-drawing, mathematics, theoretical mechanics, applied mechanics, and freehand drawing, provided always that the right to enjoy the exhibition for the second year shall be contingent on the candidate's success in the college examinations held at the end of the first year. Sir Joseph Whitworth will pay each college annually for four years, as a trial of the success of his proposal, the sum of £100 for or toward, at the option of each college, the academical expenses of the competitors.

[From the report of Inspectors of Factories, 1874.]

## PANMURE WORKS, CARNOUSTIE, NEAR DUNDEE.

In visiting factories it is always pleasant to notice any efforts made by the occupiers to promote the social well-being and improvement of their work-people. In this respect Messrs. James Smieton & Sons, of the Panmure Works, Carnoustie, afford a praiseworthy example. Their works consist of a power-loom factory for weaving, calendering, and packing jute and linen cloth, giving employment to about five hundred persons. Of this number about seventy are half-timers, attending a school upon the premises, and carefully instructed in the ordinary branches of education by a well-qualified female teacher, holding a first-class government certificate, and two assistants. The girls, who form the greatest number of the half-timers, have the additional advantage of being taught sewing and knitting, and are also instructed in music, according to the tonic sol-fa system, by a master employed for the purpose. Evening classes are open for such of the workers as are employed in the factory during the day. The expense of maintaining these schools is defrayed solely by the Messrs. Smieton. There is also an evening class, during the winter months, for young men connected with the works, where for a merely nominal sum, instruction is given in the higher branches of education, by a highly qualified male teacher. In connection with these works is an elegant and spacious hall, capable of accommodating six hundred persons, and furnished with piano and harmonium. It is used as a school-room during the day, and in the evening is available when required for public meetings, lectures, &c. There is also a reading-room on the premises for the exclusive use of the work-people. Five daily and two weekly newspapers are supplied by the Messrs. Smieton, besides magazines and occasionally other papers considered amusing or instructive. A bagatelle table and chess and draught boards are also placed in this room. A library, containing about a thousand well-selected volumes, has also been established; and a librarian, paid by the firm, attends twice a week for the purpose of giving out books. Commodious cottages have also been built by the Messrs. Smieton for the work-people, and are let at moderate rents, much lower than could be otherwise procured for similar accommodation in or about Carnoustie. The factory and dwelling-houses are situated in an airy and healthy locality, in the immediate neighborhood of an excellent golf-course, where, during their leisure hours, the male workers may enjoy one of the most exhilarating outdoor games in the country.

It is not asserted that there are no other wealthy manufacturers in England whose beneficence has been directed into channels similar to those marked out by the eminent firms of whom mention has just been made. No doubt there are many such, and, moreover, a much larger number who have devoted munificent sums to various charitable and religious objects. But the devotion, by a manufacturer, of a portion of the wealth he has acquired through the labors of his work-people, to objects especially designed for their benefit, appears to the author to be a disposition of his wealth which is eminently praiseworthy, and which, in effect, is true co-operation, and conforms to the dictates of natural justice. Viewed in this light, the benefactions of Sir Titus Salt are in the highest degree meritorious and worthy of grateful recognition.

The author cannot close this part of his report without the remark that in the bestowal of baronetcies the advisers of the Queen have evinced much wisdom in the selection of worthy recipients. Formerly such honors were bestowed chiefly on men eminent for military prowess; but when on such manufacturers as Sir Titus Salt and Sir Francis Crossley, such engineers as Sir Joseph Whitworth and Sir William Armstrong, on such a man of enterprise as Sir Samuel Cunard, and such a diplomatist as Sir Edward Thornton, these marks of appreciation have been conferred, the wisdom of the selection is apparent, and the fact recognized that eminence in the pursuits of civil life is deserving of at least equal honor to that gained in the profession of arms.

## LABOR IN FRANCE.

In the historical part of this work something has been said in regard to the condition of the working classes, in the territory now known as France, during the latter years of the Roman Empire and the earlier part of the feudal ages. The facts there presented were, however, given with a view to illustrating, to some extent, the general condition of the same classes in the western provinces of the Roman Empire and in feudal Europe during the periods referred to. A continued history of labor in France would have been interesting and highly instructive, and the materials for such a history, especially for that of the manufactures of this nation, so renowned for its varied and highly developed industries, are exceedingly rich and abundant. It would be easy, for instance, to trace the successive improvements in the manufacture of silk from its establishment at Lyons, in the reign of Francis I,\* to the present day, from the rude implements first employed to the automatic looms and other machinery which now produce fabrics that challenge the competition of the world. Many other industries, whose artistic products have placed France in this regard far in advance of other nations, might also be traced from their inception in the middle ages to their culmination in recent years, and such a history of the rise and progress of the industrial arts could not fail to be instructive. To do this exhaustively, however, would not only occupy more time than can possibly be devoted to this work, but require a volume of still greater bulk. Indeed it was not even practicable within these limits to present a history of the working people of each of the leading nations of Europe, still less to give a history of the various industries by which they obtain subsistence.

The history of the working classes of our mother country has been presented in some detail, but in the case of France, as in that of most other countries of modern Europe, it must suffice to give such facts and figures as will tend to show the condition of the laborer at the present time, comparing it in some instances with his condition at a period in the recent past.

## IMPORTS FROM FRANCE.

Before entering upon the consideration of the cost and condition of labor, however, it may be well to consider the extent and character of the products of French industry which find a market in the United States. Of the imports from that country during the fiscal year ended June 30, 1874, amounting to upward of \$49,000,000, the value of raw materials and other articles which are admitted duty free was but \$2,684,576, while the balance consisted chiefly of articles of luxury.

The following statement exhibits the values of the principal articles imported into the United States from France in the fiscal years 1874 and 1873, and the total value imported in each of the five preceding years :

\* The preparation of silk thread dates back to an earlier period—to the time of King Louis XI, (1461-1483,) who introduced the manufacture of silk into France. The construction of the machines employed at that early period is unknown; but they must have been of the most simple character. In the year 1670, at the request of the municipal council of Lyons, that astute statesman, M. Colbert, finance minister of Louis XIV, sent to Bologne for a millwright named Pierre Benay, who erected near Aubenas an establishment for winding and twisting silk, in which the latest improvements invented in Italy were introduced.

*Value of imports from France in the seven fiscal years ended June 30, 1874.*

Principal articles.	1874.	1873.
Silk, raw .....	\$299, 238	\$204, 965
Silk, manufactures of .....	11, 817, 424	5, 185, 450
Wool, manufactures of .....	9, 270, 044	3, 850, 607
Wines, spirits, and cordials .....	5, 350, 234	5, 473, 444
Leather, gloves .....	3, 319, 293	863, 750
other manufactures of .....	2, 004, 117	1, 851, 871
Cotton manufactures .....	2, 300, 783	858, 223
Fancy goods .....	1, 665, 028	932, 911
Watches and manufactures of gold and silver .....	1, 368, 900	784, 400
Iron and steel, and manufactures of .....	1, 032, 334	2, 253, 039
Chemicals .....	1, 293, 294	2, 312, 526
Earthen, stone, and china ware .....	622, 046	810, 831
Buttons, all kinds .....	612, 480	254, 428
Furs, dressed .....	766, 593	503, 884
Straw and palm-leaf manufactures .....	819, 606	379, 219
Other articles .....	9, 150, 482	7, 453, 632
Paying duty .....	49, 007, 320	30, 925, 977
Free of duty .....	2, 684, 576	3, 051, 223
Total .....	51, 691, 896	33, 977, 200
Total for fiscal year 1872 .....		\$43, 140, 156
Total for fiscal year 1871 .....		28, 099, 279
Total for fiscal year 1870 .....		42, 731, 138
Total for fiscal year 1869 .....		30, 284, 531
Total for fiscal year 1868 .....		25, 315, 606

#### EMIGRATION FROM FRANCE.

From the above statement it will be observed that the products of the skilled industry of France are to a large extent consumed in this country; but few, however, of its skilled workmen make their home among us. The well-known attachment of the French to their native land, together with other causes, renders the emigration from that country quite insignificant in comparison with that of other Europeans. In the heterogeneous population of this country, composed, as it is, of many nationalities, the French element is comparatively small, there being but 115,140 natives of France in the whole country in 1870. And while, since 1820, Germany has sent us nearly 2,800,000, and the British Isles over 4,000,000, the direct increment to our population from France, up to June 30, 1874, has been but 280,942. During each of the last five fiscal years the migration into the United States from that country has been as follows: 1870, 4,007; 1871, 3,137; 1872, 9,317; 1873, 14,798; and 1874, 9,643; total, in five years, 40,902; an average of only 8,180 a year. From so sparsely settled a country as Norway, during the same period, the emigration to this country amounted to 60,642, a yearly average of 12,128.

Even after the termination of the Franco-German war, when the industries were paralyzed, and even highly-skilled labor in limited demand, the emigration from France to the United States was only 14,798, of whom but 8,368 were males over fifteen years of age, showing that the number of artisans who sought a market for their skilled labor in the New World, was extremely small.

## INDUSTRIES OF PARIS.

In 1860 an inquiry into the industries of Paris was instituted by the chamber of commerce, under the direction of M. Moréno-Henriques, and the result published in a ponderous folio of 1,088 pages. This volume\* gives, in great detail, the history, progress, and present condition of twenty great groups of industries in that city, and of the numerous subdivisions of each group, with the various rates of wages paid to the employés, distinguishing respectively men, women, boys, girls, and apprentices.

The total value of the products of these industries in 1860 amounted to 3,369,092,949 francs, distributed as follows :

*Table showing the aggregate and proportionate value of the products of industry of Paris in 1860.*

No.	Group.	Value.	Percentage to the whole.
		<i>Francs.</i>	
1	Food .....	1,087,904,367	32.29
2	Building .....	315,266,477	9.36
3	Furniture .....	199,825,948	5.93
4	Clothing .....	454,538,168	13.49
5	Yarn and woven goods .....	119,998,751	3.56
6	Steel, iron, copper, &c .....	163,852,428	4.87
7	Gold, silver, platina, &c .....	183,390,553	5.45
8	Chemical and ceramic industry .....	193,616,349	5.75
9	Printing, engraving, and paper making .....	94,166,528	2.79
10	Various industries :		
	First division, mathematical instruments and time-pieces .....	66,040,233	1.96
	Second division, skins and leather .....	100,881,795	3.00
	Third division, carriages, saddlery, and military equipments .....	93,849,195	2.78
	Fourth division, wooden ware, baskets, and brushes .....	27,075,323	0.80
	Fifth division, articles de Paris .....	127,546,540	3.78
	Sixth division, industries not grouped .....	141,140,294	4.19
		3,369,092,949	100.00

## WAGES.

The rates of daily wages earned by the 416,811 persons employed in the various industries of Paris—ranging from 1 franc to 20 francs for males, and from 1 franc to 10 francs for females—are given in detail in the table on the following page :

\* Statistique de l'industrie à Paris résultant de l'enquête faite par la chambre de commerce pour l'année 1860. Paris, 1864.

# LABOR IN EUROPE AND AMERICA.

DESIGNATION OF THE GROUPS OF INDUSTRIES.

Rates of wages.	Designation of the groups of industries.															Totals.
	Food, (alimentation.)	Building.	Furniture.	Clothing.	Yarn and woven goods.	Steel, iron, copper, zinc, lead, &c.	Gold, silver, platinum, &c.	Chemicals and pottery.	Printing, engraving, and paper-making.	Philosophical instruments and time-pieces.	Skins and leather.	Carriages, saddlery, and military equipment.	Wooden ware, willow ware, and brambles.	Parisian small wares or fancy articles.	Other Industries not grouped.	
<i>Wages per diem of males.</i>																
Less than 20 cents	635	5	52	5	198	39	38	78	146	8	10	13	79	116	182	1,588
From 20 cents to 30 cents	357	49	761	185	664	139	32	461	284	8	10	20	156	605	1,194	10,937
From 30 cents to 40 cents	4,166	66	676	932	204	42	390	361	907	15	16	15	75	494	661	7,310
From 40 cents to 50 cents	3,704	144	346	406	178	137	66	547	130	28	16	100	89	373	605	6,573
From 50 cents to 60 cents	1,764	612	612	1,419	344	1,245	98	1,845	305	98	25	210	121	380	554	9,368
From 60 cents to 70 cents	3,051	1,644	1,859	5,343	1,437	3,157	628	1,483	973	438	454	1,636	408	1,149	2,442	35,950
From 70 cents to 80 cents	8,573	10,780	8,550	8,948	1,527	2,509	820	1,820	3,382	721	721	3,138	586	1,433	3,392	30,501
From 80 cents to 90 cents	6,738	7,173	6,821	5,492	2,451	4,304	1,676	1,812	4,407	1,609	1,708	3,138	989	3,464	1,607	49,710
From 90 cents to \$1.	1,247	13,885	4,301	3,053	819	3,992	1,285	762	1,630	1,383	1,527	3,909	314	1,122	1,433	38,971
From \$1 to \$1.10	1,859	16,981	7,138	4,089	1,567	4,665	1,574	1,574	3,114	2,677	960	850	365	1,718	1,901	54,192
From \$1.10 to \$1.30	716	2,685	1,637	3,388	1,183	1,137	810	262	481	659	314	398	90	193	152	10,095
From \$1.30 to \$1.50	664	3,777	3,379	1,221	536	1,816	1,656	589	1,629	1,369	313	1,543	63	611	363	19,539
From \$1.50 to \$1.70	290	686	538	230	36	283	321	125	94	214	69	256	78	78	50	13,530
From \$1.70 to \$1.90	201	524	711	493	195	493	566	150	487	539	180	484	14	134	135	5,164
From \$1.90 to \$2.10	92	161	171	48	7	50	102	30	16	100	19	62	113	31	7	814
From \$2.10 to \$2.30	61	61	121	99	13	267	353	133	259	177	59	112	13	62	42	693
From \$2.30 to \$2.50	83	102	212	136	54	42	80	81	41	52	28	12	9	35	41	1,561
From \$2.50 to \$2.70	14	12	91	115	16	8	31	16	49	48	13	4	15	9	8	390
From \$2.70 to \$2.90	26	17	118	10	16	17	37	15	6	10	13	4	15	9	8	416
From \$2.90 to \$3.10	10	10	54	19	17	15	62	10	6	10	13	4	15	9	8	416
From \$3.10 to \$3.30	6	6	13	3	14	10	10	5	6	10	13	4	15	9	8	416
From \$3.30 to \$3.50	6	6	13	3	14	10	10	5	6	10	13	4	15	9	8	416
Total males.	30,031	70,243	31,905	27,247	10,490	26,700	11,505	10,772	13,834	10,030	5,791	15,980	3,294	10,838	12,069	290,759
<i>Wages per diem of females.</i>																
Less than 20 cents	1,256	.....	8	1,168	987	.....	23	74	37	7	83	10	16	196	490	3,095
From 20 cents to 30 cents	2,189	.....	365	5,577	2,515	99	119	203	260	45	228	110	68	617	733	12,598
From 30 cents to 40 cents	1,686	16	498	10,746	4,225	400	400	1,015	1,190	137	144	241	900	2,411	548	21,346
From 40 cents to 50 cents	1,687	8	1,401	15,316	4,433	448	883	1,010	1,456	206	219	402	900	2,077	598	29,523
From 50 cents to 60 cents	1,550	5	1,440	10,097	2,318	60	897	1,569	1,680	195	58	643	60	2,694	573	10,098

From 60 cents to 70 cents.....	178	4	376	2,942	1,100	793	993	398	121	2	115	92	1,760	64	7,909
From 70 cents to 80 cents.....	39	9	231	851	185	977	637	257	30	2	184	7	2,907	63	2,250
From 80 cents to 90 cents.....	35	.....	51	364	224	165	93	85	43	2	64	71	148	40	1,264
From 90 cents to \$1.....	9	.....	.....	194	16	90	31	1	2	.....	.....	.....	31	24	273
From \$1 to \$1.20.....	7	.....	15	190	30	90	7	4	2	.....	.....	1	11	13	170
From \$1.20 to \$1.40.....	5	.....	.....	97	3	1	.....	2	1	.....	.....	.....	.....	10	110
From \$1.40 to \$2.....	6	.....	.....	33	1	.....	.....	.....	.....	1	.....	.....	5	28	73
Total females.....	7,636	35	3,475	47,477	15,637	1,053	3,597	4,290	788	749	1,769	825	12,676	2,870	106,310
Boys.....	1,183	964	2,517	498	919	1,108	3,017	190	994	56	834	253	1,106	5	14,161
Girls.....	9	.....	54	3,155	471	5	612	2	16	1	1	18	1,078	.....	5,581
Total apprentices.....	1,192	964	2,571	3,653	683	1,113	3,629	192	1,010	57	835	271	2,184	5	19,748
Males.....	30,031	70,943	31,005	97,947	10,490	26,700	11,505	10,773	13,834	5,791	15,980	3,294	10,838	12,099	290,759
Females.....	7,636	35	3,475	47,477	15,637	1,053	3,597	4,290	788	749	1,769	825	12,676	2,870	106,310
Apprentices.....	1,192	964	2,571	3,653	683	1,113	3,629	192	1,010	57	835	271	2,184	5	19,748
Aggregate number of work-people.....	38,859	71,942	37,951	72,377	26,810	28,866	18,731	14,367	19,507	11,688	18,594	4,390	25,698	14,974	416,811

\* The average daily wages, as computed from data in the above table, were as follows: males, 88.7 cents; and females, 44.3 cents.

NOTE.—In the above and in all subsequent statements, the value of the franc has been computed at 20 cents. This is done chiefly for convenience of computation, the more exact equivalent being 19.3 cents, United States coin.



In a note appended to the table on the preceding page the average daily wages earned by males and females respectively in the aggregate industries of Paris are shown. The following table exhibits, however, the average rates earned by men, women, and children in each branch of manufacture named below:

*Table showing the number of work-people and wages of men, women, and children, in the following branches of manufacture, in Paris, in 1860.*

Manufactures.	Number of work-people employed.	Wages of—				
		Men.		Women.		Child- ren.
		Range.	Average.*	Range.	Average.*	Average.*
Masons	31,676	\$0 50 to \$2 40	\$0 85			
Machinery and engines	8,027	40 to 2 00	91	\$0 30 to \$0 50	\$0 34	\$0 40
Heating-apparatus: stoves, furnaces, ovens, &c.	3,559	50 to 2 00	88			35
Foundries: iron, brass, copper, lead, and zinc.	4,026	50 to 2 40	91	30 to 40	43	28
Sewing-machines	473	60 to 1 80	1 07	50 to 70	64	
Fire-arms, swords, &c.	598	70 to 2 00	1 09		35	25
Hardware	297	30 to 1 50	81	35 to 50	43	22
Boilers and kettles of iron, brass, and copper.	2,254	50 to 1 60	87		35	25
Tin-ware	1,539	60 to 2 40	97	30 to 50	40	23
Powder-ware, tin-foil, and putty	1,607	60 to 2 00	99	30 to 50	38	20
Wool-spinning	575	50 to 1 20	1 00	15 to 40	35	24
Cotton-spinning	2,146	40 to 1 20	73	25 to 65	37	16
Shawls: woolen and cashmere	1,930	25 to 2 00	75	20 to 90	39	22
Printing and figuring woven-fabrics and dress-goods	566	50 to 1 20	99	20 to 80	46	15
Dyeing threads and tissues	1,007	60 to 2 00	83	25 to 70	41	
Woven fabrics for dresses, house-furnishing, buttons, vests, &c.	2,498	30 to 2 00	86	10 to 70	35	26
Trimnings: galloons, buttons, &c.	8,426	40 to 2 00	79	20 to 1 20	39	19
Artificial flowers	7,831	60 to 1 40	76	20 to 2 00	45	15
Corsets and hoop-skirts	2,254	60 to 1 20	79	20 to 1 20	35	20
Upholsterers	3,591	60 to 2 40	1 04	30 to 80	46	
Tailors	26,138	60 to 2 00	92	20 to 90	42	25
Tanners	1,226	50 to 1 80	88			
Morocco-makers	1,142	70 to 2 00	94	15 to 50	30	
Leather-dressers	1,660	60 to 2 40	99	25 to 50	34	22
Boots and shoes	18,082	30 to 2 00	73	15 to 1 20	38	23
Gloves: leather	1,196	60 to 2 00	93	20 to 80	44	10
Fur goods	1,065	50 to 2 00	91	30 to 80	43	26
Military equipments	5,487	70 to 1 60	93	15 to 80	47	33
Hat-making	3,354	40 to 2 20	1 12	20 to 1 60	49	13
Straw-hats	904	60 to 2 00	1 09	20 to 1 20	45	
Coaches and carriages	4,257	50 to 2 40	92	40 to 60	43	30
Fine jewelry	5,971	00 to 2 40	1 11	20 to 1 00	50	23
Cheap jewelry	2,937	30 to 2 00	93	10 to 1 20	30	22
Silver-ware	694	60 to 2 20	1 17	40 to 80	64	
Workers in the precious metals	1,240	50 to 2 00	96	40 to 90	50	45
Lapidary work	317	00 to 2 40	1 27	40 to 80	51	
Clocks, watches, and watchmakers' materials	2,386	60 to 2 40	1 09	40 to 1 60	57	20
Mathematical and optical instruments	3,108	40 to 2 00	98	30 to 1 20	45	27
Furniture: cabinet-ware	7,051	50 to 2 40	92	35 to 80	47	
Paper-hangings: wall-paper	4,459	50 to 2 40	1 03	20 to 60	28	36
Umbrellas, canes, whips, &c.	2,222	50 to 2 00	81	15 to 80	41	17
Musical instruments of metal	725	60 to 2 00	1 07			25
Piano-fortes and harps	2,101	60 to 2 40	1 06		60	35
Brushes	1,737	50 to 1 60	81	25 to 90	44	16
Matches	792	45 to 1 20	63	30 to 1 20	45	24
Printers' type	6,158	50 to 2 40	99	20 to 1 00	42	38
Lithographic printers	3,219	50 to 2 40	1 02	30 to 1 20	45	19
Chemicals and coloring matter	1,740	50 to 2 00	74	25 to 80	49	23
Pharmacists, druggists, &c.	1,511	20 to 1 60	36	30 to 60	41	15
Perfumers	1,453	60 to 2 00	73	20 to 90	39	30

\* The figures given in these columns are the computed averages—not the mean rates.

#### MANUFACTURE OF LEATHER GLOVES.

As an illustration of the completeness of the results of the inquiry, a single branch of industry, the product of which finds its chief market in this country, has been selected, and translations of the letter-press and table are presented on the following pages.

## HISTORY.

Before it came to be an article of the toilette, the glove was made use of to protect the hand. From skins and the coarser kinds of cloth, mittens were first made, being a kind of sack without division except for the thumb. Afterward, they were cut at the commencement of the joints of the fingers, so as to leave the fingers at liberty.

In the sixth century the glove of thick skin began to appear; at a later period thin plates of metal were added, forming the gauntlet adopted by the chivalry at the commencement of the fourteenth century. Under the Valois, gloves constituted part of the dress of the lords of the court. The hosiers made mittens of wool, and the glovers made gloves of cloth or of skins.

The most celebrated gloves were those made at Paris and at Vendome; those made at this last-mentioned city were so fine that they could be inclosed in a nut-shell. A practice for a long time prevailed of perfuming gloves with musk, the essence of neroli, and of frangipanni.

To the gloves of skin and of wool were added, under Louis XIII, satin and velvet gloves. The gloves worn in the time of Louis XIV were generally ornamented with ribbons, laces, and fringes of gold and silver.

During the long reign of this king many cities besides Paris and Vendome acquired a just renown by the perfection of their products. At this period is dated the reputation of the gloves of Grenoble, De Blois, Luneville, Niort, and Béziers. Ham produced the gloves known as dog-skin gloves. In the last century French industry had contributed a large quantity of gloves to the trade of Holland, England, and even Flanders and Italy, while we were indebted to those countries for certain other kinds.

The manufacturers of gloves formed an important community, which received its first corporate authority in the time of Philip Augustus, in 1190; these enactments, confirmed in the reign of subsequent monarchs, were renewed in 1656, by Louis XIV.

In 1776 the glovers, already united to the perfumers and powder-makers, were joined to the wig bag-makers and the girdle-makers. They had at that time the exclusive right to make all sorts of gloves, mittens, and other covering for the hands, to double, to line, ornament, and enrich them with embroideries and lace, with gold and silver, pure or imitated, with silk and all other ornaments, and to wash and perfume them. They were obliged to make their gloves of good skins or other material, with the ends of the fingers well secured, being of correct proportions, and bound and edged with the same material as the rest of the glove, throughout their whole length, and doubled and stitched in accordance with the rules of the art. Gloves were sold by the merchants and small dealers as well as by the master-glovers, but the manufacturing of them was prohibited to the former.

According to an ancient proverb, in order to furnish a complete glove, it was necessary that three kingdoms should furnish each its quota of handicraft to the work; Spain, the preparation of the skin; France, the cutting; England, the making of the seam. The dexterity which our workmen have attained in each of these three operations has rendered this adage obsolete, and French products possess now a superiority which is acknowledged by our rivals themselves.

It was after the Revolution that the use of gloves of skins, and the making of them, became an object of special industry. The progress made by the glove-making industry for the past twenty-five years has been very considerable. This is to be attributed in part to the quality of the skins tanned in France.

Annonay, Paris, Grenoble, Romans, and Chaumont prepare kid-skins and lamb-skins suitable for the making of smooth-finished gloves, and Milhau furnishes the skins in considerable quantity for the making of lamb and castor gloves.

As to the cut of gloves, great improvements have been made of late years, the most important of which are due to Xavier Jouvin. The cut called "l'emporte piece," and the system of measuring invented by this manufacturer in 1835, has resulted in giving to the glove-manufacture a mathematical precision.

Besides, the seaming of the gloves has gained in elegance and simplicity. This result has been attained by the assistance of a little mechanical instrument in the form of a vise, which makes the work more regular. Also by the use of stronger silk, and by the more general use of the puncturing instruments.

The sewing of the gloves is ordinarily done at the establishments where the business is carried on. The manufacturers of Paris employ very generally the workmen of the neighboring towns of Vendome, Mortagne, Verneuil, Mitry, Tremblay, and other communes of Oise and Seine-et-Oise.

Paris makes the finest quality of gloves. Grenoble makes the kid gloves of secondary quality; Chaumont and Luneville make principally for exportation; Milhau, Niort, Vendome, and Saint-Jullien prefer the manufacture of lamb, doe-skin, and castor gloves. Then the Swedish glove, which is made of the refuse of the tanned skins turned, that is to say, the hair-side in, are manufactured everywhere where smooth-finished gloves are made. Paris and Grenoble are the only markets for the sale of gloves. Manufacturers of other cities do not sell at home, they have depots and agents at Paris.

The gloves of France are so highly appreciated abroad, that the manufacturers of other countries, to facilitate the sale of their products, do not scruple to counterfeit our marks.

So confident were the French manufacturers in the superiority of their goods, that at the time of the investigation relative to the commercial treaty with England, they asked for the free admission of foreign gloves into France. Moreover, the exportation statistics clearly show the prosperity of this industry.

The exportation of gloves which amounted in 1827 to a value of only 5,516,600 francs, reached 25,000,000 in 1849, and 30,998,000 in 1853.

#### NUMBER OF MANUFACTURERS.

In 1849 there were at Paris 185 glove-makers ; in 1860 there were found to be—	
Employing more than 10 workmen .....	54
Employing from 2 to 10 workmen .....	79
Employing 1 workman, or working alone .....	21
Total .....	154
Of which 10 carry on another trade.	

The census shows, besides these, 129 fashioners.\*

#### THE MAGNITUDE OF THE GLOVE MANUFACTURE.

With 1,196 workmen the glove-makers manufactured in 1860 to the amount of 14,987,400 francs. The average for each establishment, 97,320 francs; and for each workman, 12,531 francs.

If we add to the number of workmen the 129 fashioners, working with 15 persons, the number will be raised to 1,340, and the average reduced to 11,184 francs. With 26 workmen borne upon their lists, the 129 fashioners have manufactured to the amount of 170,185 francs over and above that of the glove-makers; average for each, 1,319 francs.

#### RENTS.

The rents of the 154 establishments amount to the sum of 290,645 francs; average for each establishment, 1,887 francs.

Among the fashioners, 9 are "concierges," (doorkeepers.) The united rents of the remaining 120 amount to 19,585 francs; average for each, 163 francs.

#### WORKMEN.

Number on the census of 1860: Men, 747; women, 422; children under 16 years of age, (including 26 apprentices,) 27, of which 25 are boys and 2 girls. Total, 1,196 work-people, classified as follows: Dressers, cutters, and "doleurs;" splitters, puncturers, embroderers, sewers, and claspers.

In 1849, the glove-makers employed 1,950 workmen. The decrease of 754 is explained by the employment of a greater number of workmen in the departments where hand-work is less expensive than in Paris.

#### WAGES.

*Men.*—146 work by the day, and 601 by the piece; 9 earn less than 3 francs each per day; 33 earn 3 francs each per day; 33 earn 3.25 francs each per day; 14 earn 3.50 francs each per day; 8 earn 3.75 francs each per day; 145 earn 4 francs each per day; 127 earn 4.50 francs each per day; 284 earn 5 francs each per day; 13 earn 5.50 francs each per day; 68 earn 6 francs each per day; 9 earn 8 francs each per day; 4 earn 10 francs each per day. The workmen earning less than 3 francs are generally boarded by the employer. Those who earn more than 6 francs are the chiefs of shops or skillful cutters working by the piece.

*Women.*—95 are paid by the day, and 327 by the piece. 45 earn 1 franc each per day; 45 earn 1.50 francs each per day; 29 earn 1.75 francs each per day; 49 earn 2 francs each per day; 39 earn 2.25 francs each per day; 152 earn 2.50 francs each per day; 41 earn 3 francs each per day; 11 earn 3.25 francs each per day; 9 earn 3.50 francs each per day; 2 earn 4 francs each per day.

*Children.*—A young girl under 16 years of age earns 50 centimes per day as assistant. *Apprentices.*—Of 26 apprentices, 11 have neither salary nor gratuity: 3 receive an uncertain gratuity; 12 receive from 50 centimes to 1 franc per day; 3 of them are boarded by the employer.

#### HOURS OF LABOR.

The working-day consists generally of twelve hours; from 7 to 7 in summer, and from 8 to 8 in winter, of which two hours are taken for meals.

\* The "fashioners" (*fajonniers*) appear to be small manufacturers or contractors.

## "DEAD SEASON."

Seventy-six glove-makers report no dead season. As for the others the season continues three and one-half months in June, July, August, and September.

## MANNERS AND HABITS.

*Men.*—Out of 747 workmen, 9 have lodgings with the proprietor; 571 furnish their own lodgings; 167 lodge in furnished apartments; 571 are well behaved, (*une conduite bonne*;) 38 doubtful; 138 bad; 663 know how to read and write; 59 know how to read only; 25 neither read nor write; 76 keep holiday every Monday.

*Women.*—Of 422 workwomen, 3 have lodgings with the proprietor; 389 furnish their own lodgings; 30 lodge in furnished apartments; 397 are well behaved; 10 doubtful; 15 bad; 355 can read and write; 15 can read; 49 can neither read nor write; 29 often keep holiday on Monday.

*Children.*—The young girl lodges with her parents, and can read and write.

*Apprentices.*—Of 26 apprentices, only 1 is a girl.

*Boys.*—3 lodge with the proprietor; the rest with their parents; 18 read and write; 2 read only; 5 neither read nor write; 1 only is the son of the proprietor; 1 is a ward of the city of Paris, on account of merit in the schools; the others are placed at this business by their parents; 3 are engaged by contract, and 22 without contract; 7 are engaged for two years; 4 for three years; and 14 for four years. 1 pays 200 francs for the period of his apprenticeship.

The female apprentice is placed in the establishment by her parents, with whom she lodges, and is under contract for two years; can neither read nor write.

## MOTIVE POWER.

A steam-engine of 4 horse-power is employed at the glove-making works, and is used in the process of splitting the leather.

## DESTINATION OF THE PRODUCTS.

	France.
Marketed in France.....	7,061,900
Exported to the United States.....	4,313,000
Exported to England.....	1,353,800
Exported to Russia.....	548,000
Exported to Germany.....	185,500
Exported to Holland.....	90,000
Exported to Sweden.....	60,000
Exported to other countries.....	1,375,200
	<hr/>
	7,925,500
Total value.....	14,987,400

## TABULAR STATEMENT.

The number and classification of manufacturing establishments in Paris in 1860, by wards, (*arrondissements*), with the value of the annual product and the amount of rent in each; the number of men, women, children, and apprentices employed, distinguishing the men and women paid by the day from those engaged on piece-work, are given in the table which appears on the following page:

## FOURTH GROUP.—CLOTHING.

## No. 16.—Gloves of skin or leather.

Arrondissements.	Number of manufac- turers—			Working population in 1900.										Number of—							
	Employing—			Rents.	Resident work-people, (residing constantly at Paris)—										Total number of work-people.	Number of apprentices included in the preceding figures.					
	More than ten persons.	From two to ten persons.	One person alone.		Men—			Women—			Children under sixteen years of age working in the shop.						Total number resident.	Residing temporarily at Paris.			
					Working—		Total.	Working—		Total.	Boys.	Girls.	Total.								
					In shops.	At home.		In shops.	At home.												
1	9	12	4	25	\$517,900	148	17	165	34	20	54	8	8	219	8	229	136	46	By the piece.	By the day.	By the piece.
2	38	21	5	58	1,305,600	278	75	353	43	74	117	9	9	478	44	57	296	35	13	23	
3	3	10	3	15	58,000	8	16	24	10	9	19	1	1	44	49	1	17	6	13	6	
4	2	2	1	5	73,680	17	17	34	7	15	22	10	10	49	10	1	16	2	20	2	
5	1	3	2	4	23,800	11	11	22	5	5	10	5	5	16	16	2	9	5	5	5	7
6	2	5	2	7	25,100	4	4	8	7	7	14	3	3	17	17	2	6	1	10	1	10
7	2	2	1	5	34,800	7	3	10	1	10	11	11	11	11	31	31	3	9	9	15	15
8	8	6	1	6	94,200	9	8	17	15	15	30	15	15	36	36	15	9	9	3	3	3
9	9	14	3	20	574,000	58	18	76	90	9	99	1	1	176	1	9	67	5	97	6	97
10	3	2	1	5	104,000	28	26	54	26	26	52	25	25	51	51	3	23	4	31	4	31
11	1	1	1	1	5,000	3	3	6	3	3	6	3	3	6	6	3	3	3	3	3	3
12	2	2	2	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	3	3	3	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	4	4	4	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	5	5	5	15	220,000	40	3	43	30	18	48	4	1	5	96	4	43	49	49	49	49
16	6	6	6	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	7	7	7	21	1,200	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	8	8	8	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	9	9	9	27	2,700	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	10	10	10	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total.....	54	79	31	154	2,997,480	609	138	747	945	177	492	25	9	37	1,196	26	601	146	96	387	387

In the volume from which the foregoing extracts have been made, each subdivision of all the great groups of industries is, like the foregoing, fully and exhaustively presented. Although the period in which this inquiry was made is not recent enough to furnish with sufficient exactness the rates of wages now ruling, yet if the investigation had extended to all the chief manufacturing towns, more copious extracts would have been made.

#### CONDITION OF THE WORKING CLASSES OF FRANCE.

When the author of this Report visited France in the summer of 1872, the termination of the Franco-German war was so recent, and all branches of industry in such a prostrate and unsettled condition, that he did not deem it expedient to make a personal investigation into the cost and condition of labor in that country as he had done in Great Britain, Belgium, Prussia, and Saxony. Industry not having resumed its regular channels, it was impossible to obtain such data in relation to wages as would indicate, with sufficient accuracy for publication in a permanent form, the earnings of the work-people.

Unable to present accurate information on the subject of labor in a country so justly noted for its manufactures, and unwilling to omit its consideration altogether from this volume, resort has been had to the published results of investigations made by others at a comparatively recent period. A circular dispatch was issued by the British foreign office on June 7, 1870, to the secretaries of legations and consuls, instructing them to report upon the condition of the industrial classes in foreign countries. From the reports of the British diplomatic and consular agents in France copious extracts have been made, which appear in the following pages :

*Extract from the report made to the British government on the condition of the working classes of France, by Lord Brabazon, dated Paris, September 20, 1871.*

There are 9,000,000 families in France, 1,000,000 of which are in easy circumstances. Of the 8,000,000 belonging to the industrial or working classes, 3,000,000 are inhabitants of towns; while in England the town population is computed at four-fifths of the whole, in France it is about two-fifths. Land is very equally distributed among the bulk of the population, and the same is the case with personal property. In 1846, the population of France was distributed as follows: Rural, 75.58 per cent.; urban, 24.42 per cent. In 1861 the population was rural, 71.14 per cent.; urban, 28.86 per cent.

The decrease of the rural and increase of town population has continued since 1861 at an augmented rate. The amount of general education of the French people may be judged to some extent from the military statistics. The number of conscripts unable to read amounts to 30 out of every 100 for the whole of France. The degree of education, however, varies greatly in different parts of the country, instruction being far more general in the eastern and northern than in the southern districts. Among the 89 departments there are 14 in which, out of every 100 conscripts, from 90 to 96 can read.

As the working population of all countries may be divided into two sections, the agricultural and the mechanical, and as the condition of the former is not subject to as many changes and variations as that of the latter, it will be more convenient to give separately a general description of the agricultural class throughout France, before proceeding to consider the questions regarding the artisans.

#### AGRICULTURAL LABORERS.

Agricultural laborers are divided into two classes; those who are engaged by the year and live on the farm, and those who work by the day. Farm laborers who live in the farm-buildings receive, in addition to food and lodging, wages partly paid in money and partly in kind. The average amount of money-wages earned by farm-laborers is 145 francs (\$29) a year.

In some departments, such as l'Aisne, l'Aube, les Bouches du Rhône, and la côte d'or, laborers earn over 200 francs (\$40) in the year. In others, such as l'Aviège, la Corréze, les Côtes du Nord, la Finistère, la Haute-Garonne, they do not receive more than 100 francs (\$20.) The additional amount of wages received in kind throughout France is calculated to be about 26 francs (\$5.20.) But there is a much greater difference in the amount paid in kind than in money. In the departments Bouches du Rhône, Gard, and Gironde, it is not customary to pay in kind. In some this description of payment does not amount to more than 10 francs, (\$2;) in some it surpasses in value the amount of the money payment (in Aisne, Aude, Hérault.) By adding together both descriptions of payment it will be found that the average amount of wages received by a farm-laborer in France is 171 francs (\$34.20) a year. If to this be added the value of food consumed by the laborer, which may be computed at about 10 cents a day, it will be found that the maintenance of a farm-laborer costs his employer, on an average, about 354 francs (\$70.80) per annum.

The wages of day-laborers vary, according as they are fed or not. In order to facilitate comparison, we will only take into consideration the day-laborer who is not fed by his employer.

From a table presented to the Emperor by the minister of the interior in 1858, it appears that the average daily pay of a day-laborer in France was 1 franc 75 centimes, (35 cents.) The highest is 2 francs 50 centimes, (50 cents,) in the department of the Seine, and the lowest 1 franc 13 centimes, (22½ cents,) in the Côtes du Nord. According to the "Statistique Agricole Officielle," the daily pay of a woman in the agricultural districts was 85 centimes, (17 cents,) and that of children 63 centimes, (12½ cents.) The same document shows that the male agricultural laborer works, on an average, 200 days in the year, women 120, and children 80.

If the above figures be correct the day-laborer earns on an average \$70, a woman \$20.40, and a child \$10. The same publication gives the following calculations on the annual expenses of day-laborers, single and married :

*Average expenditure of a single man.*

	France.	
Lodging .....	27	\$5 40
Food .....	230	46 00
Clothing.....	45	9 00
Total .....	302	60 40

Deducting this from the amount which it was calculated he earned in the year, \$70, only \$9.60 remain for other expenses or for investment.

*Average expenditure of a married day-laborer's family, consisting of father, mother, and children.*

Items of expenditure.	In French currency.		In United States gold.
	Fr.	C.	
Lodging .....	42	0	\$8 40
Bread .....	235	0	47 00
Vegetables .....	36	0	7 20
Meat .....	42	0	8 40
Milk .....	24	0	4 80
Wine, beer, and cider.....	34	0	6 80
Salt .....	7	50	1 50
Clothing.....	91	0	18 20
Firing .....	32	0	6 40
Taxes.....	5	45	1 00
Other expenses.....	32	0	6 40
Total .....	581	45	116 20

The foregoing is, of course, calculated to meet the requirements of a French, and not of an English laboring-man. For a family consisting of five persons to be able to afford the above expenses, they must all work, and even then the united wages leave but a small margin.

	In French currency.		In United States, gold.
	Fr.	C.	
Man's wages .....	350	0	\$70 00
Woman's wages .....	102	0	20 40
Three children, at 50 francs a year .....	150	0	30 00
Total .....	602	0	120 40

The married workman is, therefore, according to this calculation, and under very favorable circumstances, still worse off than his single neighbor, for while the latter may, if he is economical, lay by about 48 francs, (\$9.60,) the other will have but a balance of 21 francs (\$4.20) at the end of the year.

But it must be here remarked that among agricultural laborers in France, there are a certain number who supplement their resources by the prosecution of an accessory industry, such as weaving, wood-cutting, sawing, wooden-shoe-making, cask-making, and building. Such an accessory industry may increase a single man's wages by about 190 francs a year, (\$38,) but it is probable that those who carry on a trade in addition to their agricultural labor, cannot work as many days in the year at agriculture, and consequently earn less than the purely agricultural laborer. It is calculated that about 8 per cent. of the agricultural laborers are engaged in some trade. \* \* \*

In order to form a just appreciation of the material condition of a working-man, it is not sufficient to have a knowledge of the average amount of wages he earns in the year; we must also know how much is to be deducted from this sum to defray the necessary expenses of lodging and food.

#### FOOD.

The food of the French workman is, as a general rule, substantially inferior to that to which the Englishman is accustomed. Many a French factory-hand never has anything better for his breakfast than a large slice of common sour bread rubbed over with an onion to give it a flavor. For dinner, some soup, potatoes or carrots, and sometimes a small piece of pork, which costs about 10 cents a pound; and for their last meal they eat the meat of which their soup was composed. With this frugal fare some drink only water, others half a bottle of cider, beer, or wine. Bread, vegetables, and fruit are generally to be obtained in France both cheap and good; but meat is bad and dear.

The following is the present price of food in a "cuisine ouvrière" frequented by none but factory-hands at Rouen:

*Bill of fare.*—A dish of meat and vegetables, 6 cents; bread *ad libitum*, 3 cents; one-half litre, or  $\frac{1}{4}$  of a pint of "cidre coupé," or cider and water, 2 cents—11 cents a meal,  $\frac{1}{4}$  of a pint of pure cider, 3 cents; a basin of soup, 4 cents—7 cents.

In the north of France an Englishman need make no difference in the amount or the nature of the diet to which he is accustomed. As he approaches, however, the southern districts he should diminish the amount of animal food and substitute for it bread and vegetables. Bread is an article which is always to be obtained of good quality in France, and Frenchmen consume it in much larger quantities than we do. It forms the "pièce de résistance" at every French workman's meal; and all other articles of food are regarded as accessories to what in France is literally the "staff of life." The French have always been renowned for their culinary skill. It is a talent peculiar to the whole nation. The very poorest classes possess it. A French man or woman will manufacture a palatable meal out of the very coarsest, and what, to our ideas, may appear even most repulsive materials. The "soupe," which is to be met with on every French workman's table, is infinitely preferable to the concoction of hot water, pepper, and gravy which the richest millionaire in England is obliged to put up with, if he has to dine at an ordinary English provincial hotel, or even at many an establishment in the metropolis calling itself first-class. And yet it would be injudicious sometimes to look too closely into the composition of the French dish. The result of this is, that a French workman can live, even luxuriously, where an Englishman would starve. As regards beverages, beer and wine are good, wholesome, and cheap. Within the last few years the consumption of beer has increased enormously among all classes. Formerly it was almost unknown in France; now it is the common restaurant beverage of the Parisian middle-class. The workmen, however, still cling to their wine; the beverage commonly consumed by all classes at home. The beer principally drunk is the light Strassburg, which still bears its German name of "bock," though it is of a much milder nature than the original.

The French are very much addicted to the use of the deleterious spirit called "absinthe," which has a most injurious effect on their health. The Englishman is at all times too prone to indulge freely in drink, but if he has any regard for his health he



will be careful to avoid dram-drinking, (the "petit verre," composed of all sorts of noxious spirits;) for, in addition to the adulterated character of these spirituous liquors, the dry climate of France will not permit men to take with impunity the amount of spirit which they could, perhaps, drink in England without any positively injurious effect.

According to Dr. Centeillier the population of France is not sufficiently well nourished. He calculates the daily consumption of alimentary matter by a strong, healthy man to be, at present, from 46 to 49 ounces, viz, 23 ounces water, 14 ounces carbon, and 7 ounces azote or nitrogen. In order, he says, that the matter eliminated should be regularly replaced, there ought to be an excess of carbon and nitrogen. A healthy man ought, therefore, to consume daily 31 ounces of dry food, or 6 cwt. 1 qr. 14.297 lbs. annually. The rations of the French soldier have been fixed upon this calculation.

It is, however, proved that the average daily consumption of the whole population is only 4 cwt. 1 qr. 9.017 lbs., instead of 6 cwt. 1 qr. 14.297 lbs. per man annually; but, if the number of children under five years of age be deducted, the consumption will be 4 cwt. 2 qrs. 3.63 lbs., a difference of from 1 cwt. 3 qrs. 2.416 lbs. to 1 cwt. 3 qrs. 13.439 lbs., or 29 per cent. This consumption, which corresponds to 44 gallons of wheat, 22 gallons of barley or rye, 75,018 pounds of meat, and 80,377 pounds of potatoes, is, according to the doctor, much above the average of the last century, but is, he considers, still insufficient. This must be very much below the average wants of a large portion of the population, because it must be borne in mind that the general consumption is relatively greater among the upper classes and in towns, than among the poorer classes and in the country.

As regards the consumption of wheat alone, the average is stated to have been 33 gallons per man in 1821, and 63 gallons per man in 1862.

The consumption of meat per head since the year 1812 is shown by the following table, in pounds:

Years.	Sheep, pigs, goats.	Oxen.	Cows, calves.	Total.
1812 .....	4,409	2,205	15,432	22,046
1830 .....	11,023	4,409	17,637	33,069
1840 .....	17,637	4,409	17,637	39,683
1852 .....	17,637	4,409	24,251	46,297
1862 .....	22,046	6,614	24,251	52,711

Taking into consideration the increase of population, the consumption per head for 1871 would be over 72 pounds. In 1862, 1,900,000,000 pounds of meat were consumed in France, (reckoning the kilogramme\* at 2 pounds English;) 48 per cent. were oxen, 40 per cent. pigs, 12 per cent. sheep and goats; in all, 16,000,000 of animals were slaughtered.

The following table will show the price of provisions in France during a period of thirty-two years:

Average period of years.	Half a kilo = 1.1-10 of a pound.				Ordinary-sized bird.			Half kilo.	1 dozen.	3 bushels.
	Beef.	Mutton.	Veal.	Pork.	Chicken.	Geese.	Turkey.	Butter.	Eggs.	Potatoes.
1824-1833 .....	\$0. 71.5	\$0. 73.5	\$0. 07.3.5	\$0. 06.3.5	\$0. 16.2.5	\$0. 49.4.5	\$0. 72.9.5	\$0. 14.1.5	\$0. 06.1.5	\$0. 57.2.5
1834-1843 .....	74.5	81.5	8	9.5	17.3.5	53.3.5	78.2.5	15	8.5	63.2.5
1844-1853 .....	81.5	84.5	8.5	10	19.3.5	57.3.5	84	16	9.2.5	65.2.5
1854 .....	99.5	101.5	9.4.5	12.1.5	24	67.2.5	1 01.5	18	10.4.5	1 23
1855 .....	102.5	111.5	10.4.5	13.1.5	27.2.5	73.1.5	1 06.1.5	19.3.5	11.5	1 34.3.5

*Annual increase, per cent.*

From 1824-1833 to 1834-1843 .....	From 1834-1843 to 1844-1853 .....	From 1844-1853 to 1854 .....	From 1854 to 1855 .....	From 1854-1855 to 1855 .....
\$0. 16.3.5	\$0. 15.4.5	\$0. 10.3.5	\$0. 14	\$0. 14.3.5
11.2.5	14.3.5	15	17.2.5	22.4.5
58.3.5	63.3.5	55.4.5	88	89.4.5
212.4.5	196	204	164	283.2.5
341.5	362.5	322.5	411.5	513.5
				361.5
				35.4.5
				29.1.5
				31.4.5
				103.2.5

\* The kilogramme is equivalent to 2.205 lbs. avoirdupois.

## CLOTHING.

The French workman wears a blue linen blouse and trousers. The suit costs 10s. (\$2.42), and one will last from one to two years. The only difference made in winter is to put on two extra shirts, a woolen one over a cotton. Cloth clothing is more expensive in France than in England; and as there is no occasion for an Englishman who has emigrated to the north of France to make any change, it rests with him to judge whether it would not be more economical for him to adopt the cheaper, but less durable, dress of the country. In either case, he will probably find that clothing costs more in France than in England. In the south of France, however, an English workman ought certainly to adopt the blouse, which is infinitely cooler and pleasanter than his own dress, when there is great heat.

The following prices are those at present charged by a firm in Paris, whose principal dealings are with the working-class:

	Francs.	U. S. gold dollars.
Complete suit.....	25 0 to 52 0	5 00 to 10 40
Paletot.....	19 0 to 38 0	3 80 to 7 60
Coat.....	35 0 to 52 0	7 00 to 10 40
Trousers and waistcoat.....	19 0 to 30 0	3 80 to 6 00
Trousers.....	12 0 to 32 0	2 40 to 6 40
Great-coat.....	25 0 to 39 0	5 00 to 7 80
A coat, a pair of trousers, a waistcoat, a hat, a shirt, } a pair of gloves and a cravat..... }	The whole for 70 francs.	14 00
<i>Working-dress.</i>		
Overalls.....	1 60 to 2 75	32 to 55
Blouses.....	1 90 to 4 25	38 to 85
Shirts, apiece.....	2 25 to 5 50	45 to 1 10
Boots.....	4 0 to 15 0	80 to 3 00

## LODGINGS.

Speaking generally, home-comforts are not to be met with in the dwellings of the French workmen. Their houses in the small towns and in the country are mere lath and plaster erections, ill-calculated to resist either the heat of the summer or the cold of winter. No doubt there are many exceptions to this rule, as in the case of the "Cités Ouvrières," which have been built in Paris, Marseilles, Amiens, and other towns. Many employers have also followed the good example thus set them, and have built as good houses for their work-people as can be met with in the best parts of England. In large towns the artisans usually live in apartments in flats, which are apt to be overcrowded, and, as a rule, dirty. Workmen do not appear to have much difficulty in finding lodgings near their work; but this does not apply to Paris, on account of the local separation of classes.

The "Cités Ouvrières," already mentioned, are not all built on the same plan. Some are large barracks under regulation, in which apartments are let out at a cheap rate to the working-classes. Although these buildings have been erected with every regard for the comfort of the working-man, and the regulations are made as little oppressive as is compatible with the order and regularity which are essential for individual happiness where large masses of men are brought together under the same roof, still they have never been popular among the classes for whose benefit they were erected. The French workman objects to supervision. On his return home he wishes to be a free man, and to be master of his own household; and the consequence is that for lack of a sufficient number of working-men applicants, many of the apartments in these buildings are let to a class for whom they were never intended. The Cité Ouvrière at Marseilles may be taken as a specimen of this class of building. It is built on the side of the well-known hill which overlooks Marseilles, and which is surmounted by the little chapel consecrated to Notre Dame de la Garde. It consists of a single building of three stories, and contains 150 rooms opening on to long corridors. The rooms are let for 80c. to \$1 and \$1.20 a month. The furniture consists of an iron bedstead, a table, two chairs, a cupboard and a looking-glass. Only men are admitted.

The workmen have the use of a large restaurant in the house at very moderate prices. A physician attends and gives medicine gratis. Hot-baths are prepared every Sunday, and cost 5 cents.

The Cité Ouvrière, in Paris, in the Rue Rochecouart, contains 170 dwellings, besides a *salle d'asile* and a small establishment of baths. Furniture is not provided. The rooms are better than can be obtained by workmen in the neighborhood, and the price about the same. The Cité Napoleon was the first Cité Ouvrière erected in Paris, and is composed of 15 houses, 929 dwellings for married workmen, and 604 rooms for bachelors. Rent for workmen, \$13.40 to \$50 a year; for employés or clerks, \$59 to \$79. The furnished rooms are let for \$1.60 a month. At Amiens, similar erections have been made. Rent for family, from \$15.60 to \$25.20.

The system, which has really been a perfect success, is that adopted at Mulhouse. The workmen's dwellings consist of rows of two-storied houses, each with a garden attached, and the condition of the lease is such that a workman, after a certain number of years, can obtain the freehold of his house. This has an immense moral influence on the population. There is no irritating system of supervision. The workman feels that he is the possessor of a real home, that in a few years he will become a proprietor; and thus the whole character of the man is changed. His self-respect increases, he feels himself a member of the body-politic, and his interests enlist him on the side of order.

The following passages are extracted from a sanitary report on the condition of Lille which was drawn up and presented to the municipality of that town in 1832. Great improvements have been effected since that date, and several new quarters for the working-classes have been erected; but if the misery is no less now than in 1832, there is still enough left to afford ample scope for improvement:

"It is impossible to imagine the dwellings of our working-classes without seeing them. Through the state of indifference and demoralization in which they live, they bring themselves into a condition of dreadful and deadly misery. In their dark, underground dens, in their rooms, which might be taken for cellars, the atmosphere, however loathsome, is never changed. The walls are covered with filth. The beds, when there are any, consist of dirty planks, covered with damp and putrid straw. The coarse sheet, the color and material of which is hidden under a layer of dirt, resembles a sieve in texture.

"The furniture is mildewed, bedaubed, and broken. The windows, always closed, are pasted up with paper so blackened and smoked that the light is unable to penetrate. In some cases the windows are nailed up by the proprietor to prevent the panes of glass from being broken by opening. The floor is worse than all, strewn with rubbish, filth, cinders, and remnants of vegetables picked up in the streets, and infected with vermin of all kinds. The air is unfit to be breathed," &c.

M. Blanqui has thus described the workmen's habitations at Rouen: "The entrance is often by a low, dark, and narrow passage, where a man can hardly stand upright. These passages are the bed of a fetid stream issuing from the different stories and apartments, and which runs into the small court-yard and there stagnates. The stair-cases are spiral, without light or bannisters, bristling with hardened filth, and by them are reached dismal low dens, with windows and doors which scarcely open or shut, and with little or no furniture. The youngest children sleep on a bag of cinders; the rest of the family, father and mother, brothers and sisters, are all huddled together on a miserable litter."

Great efforts have been made to ameliorate the condition of these wretched classes, and much has been effected since the above was written, but the amount of poverty that prevails renders it difficult to keep pace with it.

M. Jules Simon remarks, in speaking of the wretched condition of the working-classes in the French towns, that luckily they are not aware of the extent of their misery, and in proof of this he quotes an old woman lying on some wretched straw in a damp cellar, who, pointing to her neighbor on the wet, bare floor, said, "I am not rich, but, thank God, I have my pallet of straw."

#### WAGES AND QUALITY OF WORK.

There can be no doubt that the trustworthiness of the workman has an influence in most trades on his rate of wages. Of course, in some mechanical employments, where the workman is but a machine, and where there is no scope for the quality of honesty or dishonesty to make its influence apparent, the former may not be remunerated as it should be; but, on the other hand, in some trades, such as the jeweler's, honesty fetches a high price. The persistent abstraction of an infinitesimal portion of the silk given to the Lyons workmen to manufacture has always weighed heavily on the trade of that city. The workman forgets that the effect of this petty fraud is to increase the cost of production, first, by loss of material; second, by increased expenditure in supervision. He forgets that the manufacturer has to contend with competition; that his competitors are foreigners, who, perhaps, are not so heavily weighted in the race, working, probably, under more favorable circumstances, and where a stricter code of morals prevails. On this subject, M. P. Beaulien, in his "*Populations Ouvrières*," says: "The

manufacturer who is the victim of petty larceny is obliged to sell his goods at the same rate as foreign manufacturers, although the cost of production is greater in his case, owing to the frauds to which he is subject. To meet this he has but one resource, viz, the diminution of the rate of wages. Either the factory or work-shop must be closed or wages must be lowered. There is no middle course, and in either case the workman is the sufferer."

In 1856 the French government, alive to the economical consequences of the dearth of 1853, instituted inquiries on the influence which the increased price of food had exercised on the rate of wages, with the following results:

*Rate of wages in the principal departmental towns (Paris excepted) during the years 1853 and 1857.*

DAILY WAGES OF A WORKING-MAN WHEN BOARDED.

	1853.	1857.	In-crease.
Ordinary pay.....	\$0 19	\$0 21½	\$0 02½
Maximum pay.....	24½	28	03½
Minimum pay.....	14½	17	02½

WHEN NOT BOARDED.

	1853.	1857.	In-crease.
Ordinary pay.....	\$0 37½	\$0 42½	\$0 05
Maximum pay.....	47	54	07
Minimum pay.....	30½	35	04½

From the above table it would appear that wages, taken *en gros*, increased between 1853 and 1857 at the rate of about 14 per cent., or one-seventh.

But the most important point to ascertain is the ordinary daily rate of wages of workmen not boarded, who compose by far the largest portion of working-men, and form the real laboring class. Under this category it was found that ornamental workers in stone attained to the highest rate of wages, viz: 68 cents in 1853, and 80 cents in 1857. Some of the more experienced workmen in the same profession received even as much as 94 cents in 1853 and \$1.14 in 1857. After them came the workers in jewelry and precious stones, who received 55 cents in 1853, and 59 cents in 1857. The wig-makers received the lowest wages, 27 cents in 1853, and 33 cents in 1857; and the weavers 28½ cents in 1853, and 31½ cents in 1857.

Among women the artificial-flower makers obtained the highest rate of wages. From 26½ cents their wages rose within the five years to 30 cents. The worst paid were the slop-makers, 19 cents in 1853, and 25 cents in 1857; the stay-makers, the embroiderers, and the seamstresses, who received from 19½ cents to 19½ cents in 1853, and 22½ cents to 23 cents in 1857.

In 1854 and 1855 the following were the rates of wages of workmen engaged in the house-building trade in the principal departmental towns:

*Average daily rate of wages obtained by a good workman in the building-trade.*

Mason: In 1854, 43 cents; in 1855, 44½ cents.

Carpenter: In 1854, 46 cents; in 1855, 47½ cents.

Joiner: In 1854, 46 cents; in 1855, 48 cents.

Locksmith: In 1854, 47½ cents; in 1855, 49 cents.

The quality of the work executed by French workmen is, as a general rule, good. They have much more taste than the English workmen; they consequently excel in the manufacture of all articles of luxury where refinement and a correct eye for the artistic are necessary; but where solidity or accurate finish is required, especially in iron and steel work, the Englishman is superior.

COTTON MANUFACTURE.

The manufacture of cotton, which now occupies so prominent a position among the industries of the world, was not introduced into France until about the middle of the seventeenth century. In 1816 the French manufactories were employed on more than 12,000,000 kilogrammes (11,810 tons) per annum.

The cotton industry in France has from its very commencement adopted as its *spécialité* the manufacture of fine texture, while England on the other hand has principally aimed at the production of coarse articles at a cheap rate. The French textures, in consequence of their fineness and elegance, have always sold for higher prices than the English, but the proportion between the two prices has always remained about the same.

The average wages of cotton-spinners are from 30 cents to 40 cents; 40 cents is paid for spinning two sides and 30 cents for spinning one side.

The hours of work at Rouen formerly were from 6 a. m. to 7 p. m. They are now reduced from 6 a. m. to 6.15 p. m., and in some establishments only from 6 a. m. to 5.15 p. m.; but the employers state that they are afraid they will not be able permanently to adhere to this reduction on account of the loss which this diminution of labor entails.

The following shows the difference in the wages of the workers in cotton in 1860 and 1870:

PIECE-WORK.—Average salaries per day of good workmen.

	1860.	1870.
Spinners.....	\$0 32	\$0 39½
Weavers.....	59	74
Carders.....	34	39½
Winders, (men or women).....	25	39½
Children.....	14½	25
Average.....	33½	37½

This augmentation of wages is at the rate of 30 per cent. in ten years.

The proportion between the men, women, and children from twelve to sixteen years of age employed in the cotton-factories of France, is 50 per cent. men, 25 per cent. women, and 25 per cent. children.

In some manufactories a good weaver, employed at piece-work, can gain as much as \$1.19 a day, but this is an exception.

In the Vosges wages are a little lower than those already quoted, but the augmentation during the last ten years has followed the same ratio.

\* \* \* \* \*

Daily wages in the cotton-trade at Amiens.

	Wages in U. S. gold.
Hecklers.....	\$0 40 to \$0 60
Preparers.....	30 to 40
Spinners.....	30 to 50
Reelers.....	30 to 50
Doffers.....	12 to 45
Weavers.....	40 to 80
Mechanics.....	60 to 1 00
Foremen.....	80 to 2 40

The houses built for their work-people by the *Compagnie Anonyme* consist of four rooms, with a coal-shed and a small garden. The rent before the war was 50 cents, which has now been reduced to 25 cents. The houses of the same class in the neighborhood are let at from 50 cents to 55 cents.

\* \* \* \* \*

*Elbauf*.—This town, which holds such a prominent place in the manufacture of cloth, contains from 9,000 to 10,000 workmen permanently residing within its limits; about 20,000 altogether, counting the floating population. The value of the manufactures of this town amounted in 1858 to 85,000,000 francs, (\$17,000,000.)

The fact that the number of workmen employed for the last half century has not altered, is worthy of notice, although the production has so enormously increased. Thus if we take, for the sake of comparison, the years 1804 and 1853, that is to say, a year in which all the work was executed by hand, and a year in which machinery was employed, it will be found that the same number of men were employed, notwithstanding the difference in the amount produced.

In 1804, 15,500 pieces of cloth were manufactured, while in 1853 82,000 pieces were made. In 1804 three kinds of cloth were made, the average price of which was 24 francs the metre. In 1853 the action of machinery had reduced the average price to 12 francs the metre. The cloth manufactured in 1853 for 12 francs was superior to the cloth which in 1804 sold for 20 francs.

The wages of the workmen in 1804 were 24 cents a day; women, 15 cents; children 4 to 6 cents. In 1853 the average had risen to 55 cents for men, 35 cents for women, and 15 cents for children.

*Lille*.—This is a very large center of industry, the cotton-spinners alone amounting to 7,000 or 8,000 in number. The population of the town is over 154,000, and the inhabitants are chiefly engaged in the manufacture of lace, tulle, and cotton fabrics. The climate, like that of Calais and Dunkirk, is very similar to that of England. Men earn from 50 to 65 cents a day, and the women 50 cents, working twelve hours. In the cotton-mills wages average from 44 cents to sometimes, but rarely, 70 cents a day.

*Oisiel*.—The wages here are: men, from 60 cents to \$1; women, from 30 cents to 60 cents; youths and girls, from 25 cents to 55 cents; and children, from 15 to 20 cents.

*Rouen*.—The cost of provisions at Rouen is as follows: meat, 20 cents a pound; milk, 2 cents the litre; bread 4 cents a pound. The rate of wages is as follows: Fitters in engineering works get 87½ cents to \$1.18 a day; turners the same; smiths working steam-hammers, \$1.50 a day; iron-molders, from \$1 to \$1.25 a day; "monteurs," being better educated and of rather a superior class, get 14 to 16 cents per hour.

The want of the system of apprenticeship here tends to inferior workmanship; and the employers do not speak very highly of the amount of talent shown by their men, nor of their evincing much pride in their work. The hours of work vary from eleven to twelve hours in the town; in the country they are nearly always twelve. In Paris alone they are ten, but they are scarcely ever ten elsewhere, except in cases where the business is in the hands of a company who are spending money which is not their own. All firms who work for themselves work for eleven or, more generally, twelve hours.

At the manufacturing town of Bolbec, in the neighborhood, where there are several large capitalists, the men work for eleven hours only; and the system adopted there by these employers, who are endeavoring to better the condition of their workmen, seems to have resulted in making them more settled, and to have improved the whole tone of their character; they evince more pride in their work, and thus repay their employer by attending to his interests, while their whole *morale* is raised; but this would hardly be possible in a large town where the proprietors did not all agree to act in concert in the matter.

*Valenciennes* has almost entirely ceased to produce the lace which bears its name. The workmen who make the real Valenciennes lace earn 26 cents a day; those who make the imitation, as it is made in Belgium, earn 1 franc, 50 centimes, (30 cents) for twelve hours' work. The workers in coarse lace earn 25 cents.

The large coal-fields in the neighborhood, in what is called the Bassin de Valenciennes, supply three-fourths of the coal obtained in the whole of France, and concentrate in this district a large mining population, which numbered in 1864 nearly 17,000 hands. The yield the year before was over 3,000,000 tons of coal.

*Chalons-sur-Marne*.—With the exception of a glass manufactory and two stocking manufactories, which employ a number of women, there are no great industrial establishments here. The hodmen get from 50 cents to 60 cents a day. The last prices are the same as in the spinning factories in the little town of Snipies, twenty kilometres from Chalons. Unfortunately the lodgings are of a very low character, damp, and unhealthy. They cost, unfurnished, from \$30 to \$40 a year for a family of four persons. The climate is healthy. The average temperature varies between 90° Fahrenheit, in the summer, and 15° Fahrenheit, in the winter, the average lying between 50° Fahrenheit and 60° Fahrenheit. Coal costs 80 cents to 90 cents the 100 kilogrammes, (1 cwt. 3 qrs. 24 lbs. 7 oz.) bread, per pound, 4 cents; meat, per pound, 18 cents; butter, per pound, 28 cents; eggs, each, 2 cents; potatoes, per pound, 5 cents; bacon, per pound, 18 cents; wine, per pint, 5½ cents; beer, per pint, 3 cents.

*Lons le Saulnier*.—Cheese and wine are the staple products of this district. A salt-mine, employing 150 hands, gives work to the population. A mechanic, in proportion to his skill and strength, can earn from 45 cents to 70 cents a day. Masons, carpenters, blacksmiths, &c., receive about 4 francs or 5 francs (80 cents or \$1) for a day's work of twelve hours. Lodgings, consisting of single rooms, cost from \$10 to \$13. Workmen sometimes live in boarding-houses for \$8 to \$10 a month; but many find it cheaper to live at home. The climate is a temperate one.

*Nancy*.—The wages here are very low and workmen are obliged to live with the greatest economy. Mechanics, for instance, who are the most numerous class here, only receive from 39 cents to 50 cents a day. The best only get from 60 cents to 80 cents. The skilled workman only receives 80 cents per diem. Beyond these, higher wages are only given for piece-work to workmen employed in special branches of industry in large establishments. These can live well on their earnings. Miners puddlers, plate-rollers, casters, and mechanics can get on, and even live well, if they are sensible men and economically disposed. The embroiderers and the lace-workers of Mirecourt, who number, the former about 40,000 workmen, the second about 25,000, are very badly paid. In 1852, the lace-workers of Mirecourt complained that their daily labor of twenty hours only produced 35 centimes to 40 centimes (7 to 8 cents) while formerly they received from 14½ centimes to 19 centimes.

*Rheims* is indebted to the manufacture of wool for its important industrial position. It holds the first rank in the amount of production, 30,000 to 40,000 workmen being employed in this branch of industry. Since the introduction of steam-carding the workmen employed in this department have suffered considerably. While an industrious workman requires an assistant to enable him to card by hand, in the year, 715 to 770 pounds, the machine can prepare 33,000 pounds to 45,000 pounds in the same time. Formerly a carder could earn 300 francs (\$60) a year, a sum insufficient to support him comfortably, but now he cannot earn even that.

Taking the average of all the industries in *Rheims* by hand as well as by machinery the income of the artisan in 1860 was \$100. If we separate those who work by hand from those who work with the aid of machinery, it will be found that the former earned \$80 per year, and the latter \$120.

*St. Etienne*.—The following table gives the prices of provisions at *St. Etienne* in 1871:

Articles.	In French currency.	In United States cur- rency.
	f. c.	
Wheat.....per 100 kilogrammes, 220 pounds..	26 50	\$5 30
Rye.....per 100 kilogrammes..	18 00	3 60
Barley.....per 100 kilogrammes..	20 50	4 10
Oats.....per 100 kilogrammes..	20 50	4 10
Pease.....per 100 kilogrammes..	32 00	6 40
Lentils.....per 100 kilogrammes..	50 00	10 00
Beans.....per 100 kilogrammes..	27 00	5 00
Potatoes.....per 100 kilogrammes..	6 50	1 30
Flour.....per 100 kilogrammes..	40 00	8 00
Bread, white.....per 100 kilogrammes..	50 00	10 00
Bread, brown.....per 100 kilogrammes..	45 00	9 80
Bread, black.....per 100 kilogrammes..	34 00	6 80
Beef.....per kilogramme..	1 90	*18
Veal.....per kilogramme..	1 80	*17½
Mutton.....per kilogramme..	1 90	*18
Pork.....per kilogramme..	1 60	*15½

\* Per pound.

*Lyons* contains about 300 manufactories of silk, and as several are in the hands of partners, the manufacturers number from about 450 to 500. About three-fifths of the production is for the foreign market. There are 70,000 looms at work, employing 175,000 hands. In 1860 the wages paid were at the rate of 13½ cents per yard. The weaver can make a little more than 4 metres (4½ yards) a day, working from 5 in the morning until 10 at night, which brought in 70 cents. Thirty-five cents out of the above sum went to the owner of the loom, and 35 cents to the workman. Some are better paid, but the average is 36 cents per day.

The majority of the *Lyons* workmen occupy large houses of five or six stories, built expressly for them. The rooms are made sufficiently lofty to take in a Jacquard loom, and are let separately. The largest part of the room is devoted to the looms, the numbers of which vary from two to six, while the remainder of the space, forming a kind of alcove, lighted sometimes by a window, is divided—thanks to the height of the room—into two divisions, one above the other. The upper part is reserved for the children and assistants; the lower half serves as kitchen, sitting-room, and bed-room for the owner of the looms. The staircases are large and airy. The healthiness of the modern lodgings and the assistance of machinery in weaving have had a marked effect on the health and physique of the population.

The French law for the protection of children is not so stringent as the law in England. Children from eight to twelve years of age may work in France eight hours out of the twenty-four, that is one and a half hours longer than in England. There is also no effective system of supervision. The French law only applies to manufactories and establishments in which machinery moved by mechanical power is used, or in workshops containing more than twenty workmen. The *Lyons* workshops never hold more than six workmen, and the government has never used the power conferred on it by this law to extend the prohibition. It is, therefore, a dead letter as far as the silk manufacture is concerned.

*Market and retail prices of provisions at Lyons in September, 1871.*

	Market.
Butter, per kilogramme, 2 pounds 3½ ounces.....	\$0 42
Eggs, per 100.....	1 43
Cheese, per kilogramme.....	27
Fresh sea-fish—1st quality, per kilogramme.....	64
Fresh sea-fish—2d quality, per kilogramme.....	29
Fresh-water fish—carp, per kilogramme.....	29
Fresh-water fish—tench, per kilogramme.....	46
Fresh-water fish, pike, per kilogramme.....	89
	Retail.      Market.
Bread, per kilogramme.....	8 c.      7½c.
Beef, per kilogramme.....	27½      27
Veal, per kilogramme.....	37      34
Mutton, per kilogramme.....	37      34

*Fin ordinaire*, or wine of the country, 7 cents to 12 cents per litre—(1½ pints.)

**Marseilles.**—Nothing is manufactured here on a large scale but soap, for which there are large works, with corresponding mills for crushing oil-seeds, and one or two large engineering establishments. In these the wages range from 62 cents to \$1 a day, according to the quality of work. The prices of house rent, labor, food, and clothing are within 1 or 2 per cent. the same as at Paris; bread, meat, vegetables, clothing, and furniture are slightly dearer; house rent, fruit, and wine are cheaper. Most things are brought from Paris, which accounts for the high prices. It would seem that living at Marseilles costs more than in London, or any other large town in England.

**Bordeaux.**—The purchase-power of money at Bordeaux as regards absolute necessities of life, such as food, clothing, and lodging, is less than in England. The light wines of the country are drunk in preference to beer, and are more suited to the climate, especially in summer. The drairage at Bordeaux, from the porous nature of the soil, is naturally very good; workmen can obtain lodgings near their work, and do not suffer from overcrowding. In the manufacture of small articles, French workmanship is nearly always better as regards finish, but it is not of so solid and strong a character as the English. Wages in manufacturing establishments vary from between 80 cents to \$1.20 for men, from 40 cents to 60 cents for women and grown lads, and from 20 cents to 40 cents for girls. The English workman cannot live as well at Bordeaux as in England, nor are his earnings as great. Rent of furnished lodgings is from \$3 to \$3.62 a month. Fuel costs \$8 to \$9 a ton. Meat 20 cents the English pound. Vegetables, groceries, and clothing are all dearer than in a town of the same size in England. The Englishman being accustomed to animal food, which is twice as dear as bread and vegetables, (upon which the native thrives,) cannot feed himself for less than 3 francs (60 cents) a day; the same sum sufficing to cover all the expenses of the French workman.

**Montauban.**—The climate is very healthy and mild, and epidemics unknown. The temperature in winter rarely goes below 24° F., and that only for a few days. A winter suit of clothes can be got complete for from \$6 to \$10; summer ones, from \$4.25 to \$6. A workman can get good healthy lodgings of two rooms, for from \$2.10 to \$3.10 a month. Food is plentiful and cheap. Eggs cost 1 cent apiece. Chickens, 30 cents to 40 cents apiece. Butchers' meat and vegetables are cheap, as is also fruit. Wine costs 5 cents to 6 cents for ¼ imperial pint. The industry of the place consists in the manufacture of coarse woolen goods and serges, (*Cadis de Montauban*), in spinning silk, and in making furniture. The character of the people is somewhat indolent, and they might, if they chose to be more active, easily double their average earnings, which are from 40 cents to \$1 a day for men, and 10 to 20 cents for women.

**Chateauroux.**—There are two manufactories here; one of tobacco, in which the men earn about 30 cents; and one of cloth, in which 54 cents is the average of wages. Mechanics earn from 40 to 80 cents in foundries, &c. The ordinary workman earns from 34 to 68 cents a day. In dress-making establishments, where women are employed, wages vary from 25 to 30 cents. The average time they work is ten hours. Food is wholesome and abundant. Meat costs from 35 to 42 cents per kilogramme, (2 pounds 3½ ounces.) Turkeys cost \$2.40 to \$3 the pair. Fowls, from 58 cents to \$1.18 a pair. Bread is at 9½ cents per kilogramme, (about 4½ cents per pound,) for the first quality. The second costs about 3½ cents per pound.



## PRICES OF PROVISIONS IN PARIS, IN 1871.

Articles.	In French currency.	In United States gold.
	<i>f. c.</i>	
Bread, first quality.....per $\frac{1}{2}$ kilogramme..	0 45	\$0 09
Bread, second quality.....per $\frac{1}{2}$ kilogramme..	0 25	05
<b>Meat:</b>		
Beef, first quality.....per 1 kilogramme..	2 00	40
Beef, second quality.....per 1 kilogramme..	1 70	34
Beef, third quality.....per 1 kilogramme..	1 50	30
Veal, first quality.....per 1 kilogramme..	2 60	52
Veal, second quality.....per 1 kilogramme..	2 20	44
Veal, third quality.....per 1 kilogramme..	2 00	40
Mutton, first quality.....per 1 kilogramme..	2 20	44
Mutton, second quality.....per 1 kilogramme..	1 70	34
Mutton, third quality.....per 1 kilogramme..	1 40	28
Fillet of beef.....per 1 kilogramme..	5 00	1 00
Rump-steak.....per 1 kilogramme..	3 00	60
Butter, first quality.....per $\frac{1}{2}$ kilogramme..	2 50	50
Butter, second quality.....per $\frac{1}{2}$ kilogramme..	2 20	44
Butter, third quality.....per $\frac{1}{2}$ kilogramme..	1 70	34
Butter, fourth quality.....per $\frac{1}{2}$ kilogramme..	1 35	27
Milk.....per litre..	0 40	08
Cream.....per litre..	1 00	20
Sugar, first quality.....per $\frac{1}{2}$ kilogramme..	0 80	16
Sugar, second quality.....per $\frac{1}{2}$ kilogramme..	0 75	15
Sugar, third quality.....per $\frac{1}{2}$ kilogramme..	0 70	14
Coffee, first quality.....per $\frac{1}{2}$ kilogramme..	2 40	48
Coffee, second quality.....per $\frac{1}{2}$ kilogramme..	2 20	44
Coffee, third quality.....per $\frac{1}{2}$ kilogramme..	2 00	40
Coffee, fourth quality.....per $\frac{1}{2}$ kilogramme..	1 80	36
Tea, first quality.....per $\frac{1}{2}$ kilogramme..	8 00	1 60
Tea, second quality.....per $\frac{1}{2}$ kilogramme..	6 00	1 20
Tea, third quality.....per $\frac{1}{2}$ kilogramme..	4 00	80
Candles, first quality.....per $\frac{1}{2}$ kilogramme..	1 50	30
Candles, second quality.....per $\frac{1}{2}$ kilogramme..	1 40	28
Candles, third quality.....per $\frac{1}{2}$ kilogramme..	1 30	26
Candles, fourth quality.....per $\frac{1}{2}$ kilogramme..	1 25	25
Lamp-oil, first quality.....per $\frac{1}{2}$ kilogramme..	1 80	36
Lamp-oil, second quality.....per $\frac{1}{2}$ kilogramme..	1 60	32
Fire-wood.....per 1,000 kilogrammes..	70 00	14 00
Coal.....per 1,000 kilogrammes..	60 00	12 00
Coke.....per 1,000 kilogrammes..	60 00	12 00
Wine.....per litre..	50c. to 70c.	10c. to 14c.

## FROM REPORTS OF BRITISH CONSULS.

## BOULOGNE CONSULAR DISTRICT.

The following is the price of labor for the day of 10 hours: a mason, 70 cents; a slater, 90 cents; a carpenter, 80 cents; a joiner, 68 cents; a locksmith, 70 cents; a painter, 54 to 62 cents; an ordinary laborer, 54 cents. In the boot trade a workman earns from 60 cents to 70 cents a day by piece-work. In the pen manufactory wages are about \$3.75 a week, the day's work being from 8 a. m. to 7 p. m. with the interval of an hour; the women employed on piece-work probably receive as much. In the cement-works, where not much skill is required, the wages are 56 cents a day. In the iron-works the ordinary laborer is paid from 50 to 56 cents, while the skilled workman receives as much as \$1 a day. In the carriage manufactory, which is a very important business, the wages range from 50 cents to \$1.25 a day, according to the degree of skill in the workman.

The following are the prices of provisions in the town of Boulogne: Wheat bread, first quality, 4 cents per pound; beef, ordinary quality, 22 cents per pound; mutton, ordinary quality, 20 cents per pound; veal, ordinary quality, 20 cents per pound; pork, ordinary quality, 18 cents per pound; butter for the table, 32 cents per pound; butter for the kitchen, 25 cents per pound; coffee from 40 to 45 cents per pound; sugar, white, 17 cents per pound; sugar, brown, 13 to 15 cents per pound; coals are from \$6 to \$6.50 per ton.

## CALAIS CONSULAR DISTRICT.

*Lodgings.*—In the neighborhood of Calais the lodgings are tolerably good and healthy, and conveniently situated as regards distance from work.

In the Lille district there are a few unhealthy lodgings, but such cases are rare.

In Saint Valéry-sur-Somme lodgings for working-men are very scarce. Laborers employed on public works, such as the embankments, reside generally at a distance of from three to five miles from the town, and have to come to and from their work, according to the state of the tide. Mr. D'Arcy adds, that "healthy premises are very difficult to find, and that the small ill-ventilated cabins, in which the laboring classes reside, in the villages around Saint Valéry, are, in some cases, very unwholesome and dirty, in some places dughills and cesspools being contiguous to their very doors."

I would here observe that there are no factories in the immediate neighborhood of Saint Valéry, the district being purely agricultural.

As regards this part of France there is no special risk for any one living temperately; on the contrary, in the Calais district especially, the people are clean and healthy, and many of them very long-lived.

*Quality of work.*—The English workmen in the lace trade are decidedly competent, and take a pride in their work. I should say the same of the French workmen in this particular branch of industry.

Mr. Wilson reports that, with the exception of the weavers, the workmen in his district are not good, and, being badly paid, they take no pride in their work.

As regards the question whether there is any class of artisans whose work can be depended upon as good from the sense of honor they have in executing it, I should say, with, perhaps, the exception of the lace trade, they are governed not by a sense of honor, but by interest. The same remark is made as regards the weavers in the Lille district.

As to the skill of the workmen influencing the rate of wages, those employed in the lace-trade are paid according to the quality of their work and steadiness in their business, careless or unscrupulous workmen rarely remaining in their situations. Skill and trustworthiness must, therefore, influence the rate of wages.

The rate of wages in the tulle trade varies as much as from \$6 to \$14 per week, and is regulated entirely by work done. The hours, too, vary considerably. When the trade is active, the machines are at work day and night; in average seasons, during the day only; and at certain times, known as the "*morte saison*," i. e., during the autumn, they are at work only during part of the day.

In the Lille district the men earn from 50 cents to 65 cents per day, and the women 50 cents, working 72 hours per week; and in the cotton-mills they earn from 40 cents to 70 cents per day, the latter sum, however, very rarely.

## HAVRE CONSULAR DISTRICT.

*Purchase-power of money.*—It is not very easy to give the absolute rate of wages paid in the Havre district to the different classes of workmen, as it varies, as do the prices of provisions, and house-rent in the different localities being higher at Havre than in the interior. I have, however, endeavored to give the mean of the different rates.

Occupations.	Average daily wages.		Hours of labor, excluding meals.
	French currency.	United States gold.	
Carpenters and locksmiths.....	Fr. 4 00	\$0 80	9—11
Stone-masons .....	4 75	95	9—11
Mechanics .....	4 50	90	11
Bricklayers.....	4 00	80	9—11
House-painters.....	4 50	90	9—11
Smiths .....	4 50	90	9—11
Shipwrights .....	4 75	95	9—11
Laborers, ordinary.....	3 00	60	9—11
Dock-laborers .....	5 00	1 00	9—11
Cotton-spinners.....	5 00	1 00	11—12
Cotton-weavers, (principally women)....	2 50	50	11—12
Calico printers and dyers.....	4 25	85	11—12
Flax-spinners.....	4 00	80	12
Bleachers .....	3 00	60	11—12
Tanners.....	4 00	80	1—12
Engine-drivers, four classes, average....	7 35	1 47	No fixed time.
Stokers, two classes, average.....	4 50	90	do.

## AGRICULTURAL LABORERS.

Occupation.	Average wages.		Hours of labor.	Observations.
	Currency.	United States gold.		
By the year:	<i>Fr.</i>			
Plowman.....	400—450	\$80 00 to \$90	15	Board and washing found.
Ordinary laborer.....	275—325	55 00 to 65	15	Meal-times included.
Women.....	223—275	44 60 to 55	15	
By the day:				
Men, with food.....	1 50	30	13	Meal-times included.
Women, with food.....	1 00	20	13	
Men, without food.....	3 00	60	13	
Women, without food..	1 75	35	13	

## PRICES OF PROVISIONS.

Articles.	Average price.	
	Currency.	United States gold.
	<i>Fr. c.</i>	
Bread, second quality.....per 4 pounds..	0 80	\$0 16
Butter, fresh.....per pound..	1 50	30
Butter, salt.....per pound..	1 40	28
Potatoes.....per pound..	0 07½	1½
Bacon.....per pound..	1 15	23
Beef, second quality.....per pound..	0 93	18
Mutton.....per pound..	0 93	18
Pork.....per pound..	0 93	18
Lard.....per pound..	1 00	20
Sugar, moist.....per pound..	0 66	13
Coffee.....per pound..	2 00	40
Tea.....per pound..	4 50	90
Milk.....per quart..	0 15	03
Eggs.....each..	0 10	02
Soap, white.....per pound..	0 73	14½
Soap, yellow.....per pound..	0 73	14½
Soap, soft.....per pound..	0 40	08
Cider.....per quart..	0 20	04
Beer, common.....per quart..	0 25	05
Wine, common.....per quart..	0 66	13
Brandy.....per quart..	2 50	50

## PRICES OF RENT, FUEL, LIGHTS, CLOTHING.

Articles.	Average price.	
	Currency.	U. S. gold.
	Fr. c.	
Rent of rooms..... per week..	3 00	\$0 60
Coals..... per ton..	40 00	8 00
Lights.....		
Candles..... per pound..	0 76	15
Petroleum..... per quart..	0 82	16½
Clothing.....		
Tweeds..... per yard..	8 00	1 60
Fustians..... per yard..	4 50	90
Flannels..... per yard..	3 50	70
Linen (coarse)..... per yard..	1 25	25
Calico..... per yard..	0 80	16
Prints..... per yard..	1 00	20
Merino..... per yard..	2 00	40
Stockings..... per pair..	1 50	30
Shoes, men's..... per pair..	12 00	2 40
Shoes, women's..... per pair..	8 00	1 60
Shoes, children's..... per pair..	5 00	1 00
Shoes, (sabots)..... per pair..	1 00	20
Hats, silk..... each..	12 00	2 40
Hats, felt..... each..	4 00	80
Caps..... each..	3 50	70

## MARSEILLES CONSULAR DISTRICT.

Considering the severe disorganization the country has undergone since July, 1870, it is not surprising that the normal scale of wages given to artisans and laborers should have undergone many changes, and it is really difficult, at present, to say what may be considered the standard of wages. In the large engineering establishments in Marseilles the ordinary laborers are paid at the rate of 70 cents a day, and the skilled workmen earn \$1 to \$1.20. In the large soap-works, and in the mills for crushing oil-seeds, the same rates prevail. The porters and laborers employed in loading and discharging vessels, and in the work at the docks and warehouses about the port, are mostly paid at the rate of \$1 a day, or they manage to earn that amount at piece-work. Ship-carpenters, calkers, and blacksmiths are likewise paid at the rate of \$1.20. These are more or less the prevailing rates of wages in this and other large towns, artisans and laborers receiving about 10 per cent. less in the smaller towns in the south of France. Agricultural laborers are paid, on the average, from 40 to 50 cents a day.

The foregoing rates of wages sufficed, previously to the war, to keep all the available laborers occupied, and many of them were even enabled to save small sums of money. The savings-banks' returns show that, in Marseilles alone, there were 27,288 depositors in 1864, and 35,966 in 1869. Two-thirds of these, at least, were artisans and laborers. In the former year their average savings amounted to \$70.30 per head, and in 1869 to \$71.10.

There has been a falling off in the savings-banks since the outbreak of the war to the extent of 15 per cent. Considerable sums of money are likewise invested in government stocks, and all sorts of French and foreign securities, by the artisans and laboring-classes. The rate of wages which are thus stated enable the artisans and laborers to obtain the necessary aliments and clothing, as well as to meet their other necessary expenses, house-rent, &c., to about the same degree as the artisans and laborers in England. A great advantage, however, possessed by the working-classes in the south of France is the climate, which is usually so bright and cheering. With the exception of fruit and wine, provisions are not cheaper than in England. Bread, meat, fish, and vegetables are not to be obtained in the south of France below English rates; fuel is dearer than in England, but the winter being shorter in France than in that

country, the annual expenditure thereon amounts to about the same in both countries. House-rent in the large towns is higher, proportionately, than in England.

In the south of France the standard of health is very good; the climate is fine and enjoyable throughout the year, and a fair amount of longevity is not wanting. The summers are warm, but the heat does not prevent the artisans and laborers from carrying out their occupations, whether indoors or out in the open air, and the field-laborers are not prevented thereby from performing their work.

The laboring classes in these parts are frugal and abstemious in matters of diet. This consists principally of bread and wine, and, of late years, the taste for animal food has increased with the growing prosperity of the country. In the towns, especially, the taste for meat is fairly established, and successful work-people live as those in England.

The inhabitants, taken altogether, are better found in clothing than in most countries. The articles of which their clothing is composed are not altogether so good or so substantial as those in general use in England; but the Frenchman is more careful about his clothing, and his garments look better and last longer in this fine dry climate than those usually worn by English artisans and laborers. Warm clothing is absolutely requisite in the south of France, as much so as in England, the changes of temperature being very rapid, and dry, cutting winds which prevail rendering it necessary to use proper precautions for the preservation of health.

Much progress has been made of late years in securing proper lodgings for the working-classes. All the large towns are being rebuilt, and much attention is being paid to the proper ventilation and drainage of the houses. In Marseilles, Lyons, and other large towns in the south of France the working-classes can now find proper and healthy lodgings not too far removed from their work.

The workmen generally employed in the various trades and occupations in the south of France are every way most competent in their respective pursuits when it suits their fancy to display their skill; but as a rule they do not work steadily. There is much instability in their manner of working, and slovenly workmanship is not uncommonly seen. They waste much time about their work, and, considering them altogether, they do not take much pride in their work; or put their character into it.

#### NANTES.

Wages may be fixed at an average of 80 cents per day. The Parisian workman is paid by the week or fortnight, deducting, of course, the holidays. The mean pay may thus be estimated at \$20 per month, about \$240 a year, but one must not lose sight of the stoppages, ("*mortes saisons*," which, in different trades, vary between two and four months in the year. In short, the Parisian workman cannot be said to surpass \$260 yearly. It would be difficult to say whether this sum is sufficient for his maintenance.

The existence of the Parisian workman is at best a wretched one, and this is, therefore, very probably the reason why change is so popular. The general wish appears to be in favor of the eight-hour legal-labor system, the supplementary hours of work to be paid according to the present custom. This would not, however, benefit all the working-classes. The day's labor of glaziers and house-painters, for instance, varies according to the seasons. They are not paid uniformly by the day, but according to its length; having full days in the height of summer, and nothing to do in winter; their day's labor increasing progressively in spring to decline with the autumn, the pay ranging from 50 to 80 cents, \$1, and \$1.20 per day.

*Food.*—Workmen find in Paris good and abundant food at moderate prices, though perhaps not very much cheaper than in London. Again, it must be taken into consideration whether the operative be single or married. If the latter, there are many possibilities of obtaining food at more moderate prices, especially if living in the center of Paris. The central markets offer, between four and eight o'clock in the morning, all kinds of food sold first hand. With a little advance, or by clubbing together, a basket of fruit or a quantity of vegetables may be bought at a tenth of the price asked for the same articles a few hours later. The poorer classes of workmen purchase the broken victuals from restaurants and large private houses. If the workman be married, his food is usually prepared at home, and even if working a few miles off, he carries with him his breakfast in a tin box which can stand the heat, and which he will perhaps warm when he takes his wine. If single, he will repair to some "*marchand de vin*," or some cooking establishment, where regular workmen's meals are prepared whenever any number are laboring in the neighborhood. The pork-butcher's shop is likewise a favorite resort, from whence, after buying cooked meat, sausages, black puddings, sardines in oil, or hard eggs and bread, they proceed to the "*marchand de vin*" to complete their breakfast. The single man will dine as he has breakfasted, while the married man returns to dinner at 7 or 8 o'clock, according to the nature of his labor or to the distance.

The Parisian workman is highly imbued with professional pride. One constantly sees workmen refusing better-paid work, and preferring to it a less remunerative one in which they excel. Great emulation is to be found among them in this respect. Unfortunately, it is confined to the quality, and not to the quantity; highly honorable and praiseworthy, no doubt, but neither lucrative nor practical, and assuredly inverting the general order of things. Masters eagerly seek out exceptionally clever workmen. Some of them earn as much as \$5 a day, but success, self-love, ostentation, and the tastes and vices inherent in the Parisian character, often reduce these very clever artificers to positions less fortunate than those of their humble brethren, earning only 80 cents or \$1 per day. \* \* \* Rooms in the old houses, many not very healthily situated, are to be had for moderate rents; dwellings containing two or three moderately-sized rooms varying from \$26 to \$28, \$30, and \$40 a year, exclusive of taxes. Single rooms are comparatively dear; one room, without proper ventilation or light, emphatically called *un trou*, (a den,) will cost \$12.

## DAILY WAGES IN NANTES.

Occupation.	French currency.	U. S. gold.
Sugar-refiners .....	2 00 to 3 00	\$0 40 to \$0 60
Cotton-spinners .....	2 50 to 3 00	0 50 to 0 60
Wool-spinners .....	3 00 to 4 00	0 60 to 0 80
Weavers .....	2 50 to 3 50	0 50 to 0 70
Mechanics .....	4 00 to 6 00	0 80 to 1 20
Workmen in porcelain and china .....	10 00 to 15 00	2 00 to 3 00
Smiths, strikers, and riveters .....	4 00 to 6 00	0 80 to 1 20
Ship-carpenters, sail-makers, riggers, and calkers .....	5 00 to 6 00	1 00 to 1 20
Joiners .....	2 50 to 3 50	0 50 to 0 70
Carpenters .....	4 00 to 5 00	0 80 to 1 00
Rope-makers .....	2 25 to 3 00	0 45 to 0 60
Coopers .....	4 00 to 10 00	0 80 to 2 00
House-painters .....	4 00 to —	0 80
Masons .....	3 50 to 4 90	0 70 to 0 80
Plumbers and glaziers .....	4 00 to —	0 80
Laborers .....	2 50 to —	0 50
Scavengers and street-sweepers .....	2 25 to 2 50	0 45 to 0 50
Agricultural laborers, with food .....	1 25 to —	0 25
Female workers in the field, with food .....	0 30 to 0 40	0 06 to 0 08

In short, men's wages in town rarely descend below 45 cents; some earn, as may be seen, 80 cents, \$1, and \$1.20, according to their abilities; the latter price is the general pay of foremen. Here, as in Paris, exceptionally clever workmen receive pay beyond the general tariff; those on piece-work may earn \$2 to \$3, nay, even \$4 per diem in some branches. These, however, are rare exceptions.

The general price paid to workwomen is 15 cents and food, whether for dressmaking, plain work, mending, or ironing. In the manufactories they get 25 cents, without food; many prefer it, nevertheless; they find there cheerfulness, company, (seldom good, it is to be feared,) and regular work. The length of their day's work is from 8 a. m. to 8 p. m.; subtracting two hours for meals, it leaves ten hours labor; and so a woman, who has employed three years of her existence in acquiring a certain dexterity, ends by earning 1½ cents an hour to the end of her existence.

## NICE.

At Nice, a good carpenter, working by the day, or at piece-work, will earn on an average about 65 cents, the tools which he uses being found by the master-carpenter; as a general rule the workman is idle during four months of the year, including Sundays and holidays, so that the annual produce of his work will thus be about \$160. If he is unmarried he can make that sum suffice for his wants, but if married and with a family, this result seems very doubtful.

There are one hundred and twenty master-carpenters, who each employ two or three hands; but who, at times, having no work, can scarcely provide for their own wants. There are about forty masters, who may be said to employ a certain number of hands during six or eight months of the year.

Let us take the case of a workshop of the former category, and suppose that the

workshop contains three benches, each one of which, with its tools, is worth about \$20; other tools, such as presses, screws, ogive planes, saws, &c., in common to the whole workshop, are worth about \$50; in all \$110. This capital, which is absolutely necessary, can only be obtained by one workman in four hundred, by seven or eight years of labor and economy.

Let us now consider his expenses :

Rent of workshop.....	\$60 00
Insurance, (obligatory).....	1 50
Rent of lodging.....	40 00
Setting, &c., and replacing tools.....	30 00
Glue, light, and incidental expenses.....	8 00
Patent or permit, (obligatory).....	15 00
Interest on capital, and on, say, \$50 worth of wood, &c., in store.....	2 50
	<hr/>
	157 00

These amounts are given with the strictest care, as they are the result of inquiries made from a large number of masters of this class.

Now, as to the produce. Let us take one of this class of masters in the most favorable circumstances, and suppose that he employs three workmen during six months of the year, and that he gains on the daily wages of each one 15 cents, (and this is a very favorable view of the case,) this will give him about \$32.50.

As he is obliged to devote much of his own time for work in obtaining orders, drawing plans on the wood, directing and overlooking his men, putting up his work when finished, buying wood, and getting in his bills, &c., he cannot work regularly at his own bench, so that his own actual work will scarcely be worth to him 48 cents a day for 185 days, say \$90.

To go further and suppose that he is fortunate enough to have sufficient work to enable him to employ one man during two of the summer months, on whose labors he will gain about \$8.50, and if during that time he himself may be able to do work worth \$60; add to this a profit of \$60, which he may be supposed to gain on the wood used by him and his workmen during 600 days, assuming that to be 10 cents per day; this, with \$18 profit on the wood used during the summer, will give him a total gain of \$319.

From this is to be deducted the expense of his workshop, as stated before, \$157; the remainder is the profit that a master-carpenter of this class may count upon earning in favorable years at Nice, \$162; as nearly as possible what one of his workmen will gain in the same time.

The average annual gain of one of the forty master-carpenters employing a large number of workmen may be from \$200 to \$400. This result is little calculated to induce English artisans of this class to establish themselves in this district.

It must be said, however, that the amount of work effected here by one man is certainly not two-thirds of that done by an average English workman in one day. The work itself, with rare exceptions, performed by all classes, is ill-conditioned and slovenly, and would not pass inspection in England. Little or no pride is taken by the artisan in his work, and I doubt if any workman in the district would be influenced by a sense of honor to produce work of a high standard; neither do masters care to pay at a higher rate for work of a higher class, that produced being sufficiently good for the wants and for the knowledge of the employers, householders, and proprietors of the district.

As has already been said, the daily wages of the artisan are low; but, as the amount of work he performs in a day is small, and much less than an English workman would accomplish, the final cost of the material on which his labor has been expended is really as dear as in England.

Hours of labor are from or soon after sunrise to sunset, with one hour for breakfast at ten and two hours for dinner at one o'clock.

*Purchase-power of money.*

	Local currency.	United States gold.
<b>WAGES.</b>		
	<i>Fr. C.</i>	
Stone-cutter.....	4 00	\$0 80
Mason.....	3 25	65
Carpenter.....	3 25	65
Blacksmith.....	4 00	80
Laborer.....	2 00	40
Porter.....	1 50	30
Cabinet-maker.....	5 to 8	1 00 to 1 60
Wheelwright.....	3 25	65
Baker.....	3 00	60
Butcher.....	3 00	60
<b>PROVISIONS.</b>		
Beef.....per pound.	1 00	20
Mutton.....per pound.	0 90	18
Pork.....per pound.	1 00	20
Bread.....per kilogramme.	0 45	09
Sugar.....per pound.	1 00	20
Potatoes.....per pound.	0 15	03
Coffee.....per pound.	1 80	36
Tea.....per pound.	6 00	1 20
Wine.....per quart..	0 40	08

**WAGES AND PRICES IN PARIS.**

The foregoing extracts from the diplomatic and consular reports to the British government during 1871, and the first quarter of 1872, furnish as accurate information in regard to wages and prices of provisions as could then be easily obtained. Through the kind offices of General John Meredith Read, then consul-general at Paris, (now our minister to Greece,) an article was prepared for this work by Professor George Renaud, a member of the Institute of France, on prices and wages in Paris, (*Prix et salaires à Paris, in 1870 et 1872*), a translation of which is here presented :

**I.—EXPENSES OF A WORKING-MAN'S FAMILY.**

The average number of persons composing a household in Paris, since the census of 1872, is represented by the co-efficient 2.63; \* but the unmarried represent each a distinct household, and this explains why it is that in 682,110 households there are only 379,317 comprehending both husband and wife.

There exist also 150,435 widowers or widows; there are therefore 152,358 celibate households. The normal population of Paris of 1,799,250 inhabitants, diminished by these 152,358 celibates, is consequently comprised in 529,752 households consisting of husband and wife, and widowers and widows, which gives as the average of persons of which each of these households is composed the number of 3.11. One can easily estimate at 4 the number of persons in each household when both parents are living. But this average is calculated upon the total number of the middle and working classes, and it is a notable fact that these classes generally have the most children. It may consequently be affirmed without exaggeration that a working family in Paris comprises five persons. How do these five persons live? The husband and wife work; sometimes the children also; the appellation "child" is applied to all individuals under fifteen years of age, but in Paris this last fact is exceptional. As a general rule the child goes to school or is apprenticed to a trade. Moreover, the average income of the workman, taking into account the taxes on income, and the frequency of these taxes, was

\* This co-efficient has been obtained by dividing the normal or municipal population, 1,799,250, by the number of households, leaving out the garrisons, inmates of prisons, &c.



but about 4 francs 19 centimes (84 cents) in 1860; that of his wife 2 francs 2 centimes (40½ cents.) The woman does not live upon the earnings of factory work alone, often having also to work as housekeeper. She earns ordinarily 3¼ cents per hour; thus making every day of six hours about 21 cents.

Account must be taken of idle time, which so much reduces the wages of operatives, but has no influence upon that of the housekeeper. Consequently it follows that there must be a deduction made for fifty-two Sundays, and very often Mondays also; but let us not overlook this abnormal respite. The interruption of Sunday leaves to the man only 71½ cents (3.59 francs) per day for food, and to the woman 34½ (1.73 francs.) There is, moreover, a respite, owing to the regular suspension of work. It lasts generally a quarter of a year, and affects only a third part of the industries. Thus the general average of wages is not reduced beyond one-twelfth, which leaves to a man for his expenses of living but 65½ cents (3.29 francs) per day, and for a woman only 31½ cents (1.59 francs.) Moreover, it may be stated that these figures almost sin by excess. They go back to 1860. In 1870 all wages experienced an increase of above one-tenth. Unfortunately, the events of 1870-71 threw a general perturbation into business. There have been terrible stoppages, which are far from diminishing, notwithstanding the resumption of business; consequently, though workmen are scarce, the population of Paris has remained, within about 5,000 inhabitants, the same as in 1866, the city having lost by the insurrection more than 30,000 workmen, exclusive of 30,000 Germans expelled. Wages, too, have a tendency to remain what they were in 1870. They have not risen, on account of the necessity to which the workman found himself subjected to work in order to overcome the loss experienced during the siege and insurrection.

We estimate, then, the average earnings of a working-man at present at 65½ cents, plus ½, equal to 72 cents; and that of a woman at 35. The home workman, whose children do not earn any wages, must live on 72 cents, (3.62 francs,) plus 35 cents (1.75 francs,) equal to \$1.07½ (5.37 francs) per day, or \$392.44 (1,962.73 francs) per year.

In what manner was this sum of 5 francs 37 centimes (\$1.07½) expended in August, 1872?

The following table gives the reply :

	Per day.	Per year.
	Cents.	
6 pounds of bread, at.....	25½	\$93 44
1 pound meat, fish, eggs, &c.....	12	43 50
Fat substance for seasoning.....	3	11 94
Lard, about 1 pint.....	2½	8 76
Milk, per litre, (nearly a quart).....	6	21 90
Cheese, ½ pound.....	5	18 2
Sugar.....	1½	5 84
Coffee, 1 ounce.....	3	10 95
Salt.....	½	2 19
Pepper.....	½	73
Vinegar.....	½	73
Soap, 5 pounds per month.....	1½	4 38
Potatoes, 1 litre per day.....	3	10 95
Lentils, white haricots, ½ kilogramme per day.....	1	3 65
Green vegetables.....	2	7 30
Fruits.....	½	2 19
Fuel.....	2	7 30
Lights.....	½	2 92
Wine, 1 litre.....	10	36 50
Brandy, 1 small glass every morning.....	2	7 30
Tobacco.....	3	10 95
Rent, 2 rooms.....	9	32 90
Instruction, education *.....		
Linen clothing.....	8	29 20

Direct tax: (the city of Paris receives the taxes on apartments renting at less than 400 francs, \$80.)

Medical assistance is furnished him gratuitously by the administration of public assistance.

Occasion is taken to keep an account of expenditures in taverns, which are made chiefly every Sunday and Monday, and which are at least 40 cents per week on an average.

Among the registered workmen this sum may represent the average of earnings realized and placed in savings bank say, per day, 26 centimes (5½ cents;) per year, 96.70 francs, (\$19.34.) Total, francs, 1,962.10 (\$392.42.) Many modifications may have to be

\* The primary schools in Paris are free, and regarding religious culture, the Parisian workman is too indifferent to impose charges of this nature upon himself.

made in the proportion of these different expenditures; here are given only the approximate averages, but approaching truth, we believe as nearly as it is possible to expect.

The condition of the Parisian workman, though poor on the whole, is still superior to that of a working-man in the departments, or in the country, in regard to morality as well as to instruction. The industries of art aid much in this amelioration of his condition. Paris produces chiefly for exportation, and it is the superiority of taste manifested in the work which secures a regular market for his products. They are sold to foreign countries at a good price, though scarcely remunerative for workmen even of the best. There is still much to be accomplished, for 60,000 workmen earn less than 3 francs each per day; and the wages of women are lamentably small.

## II.—PRICES OF PROVISIONS, GROCERIES, CLOTHING, ETC. .

It is difficult to compare the prices of the various articles of merchandise before and after the events which so cruelly afflicted the French capital in 1870 and 1871. The greater portion of these prices have not been inserted in public papers or documents of any kind; we have had to depend on the memory of the parties, that is to say the information in question has but a strictly relative value, though it has been collected with the most scrupulous care and attention.

The following prices of various articles of merchandise were obtained either from merchants themselves or from the weekly *mercuriales* (assembly of French parliament held weekly, after vacation,) in regard to provisions exposed for sale in the market:

	In 1870, before the war.	In August 1872.
Bread, per kilogramme, (2½ pounds).....	\$0 10	*\$0 09
Wheat-flour, the ordinary kind, per 157 kilogrammes, (346 pounds).....	11 29	13 10
Wheat-flour, superior, per 157 kilogrammes, (346 pounds).....	11 66	13 40
Wheat-flour, best, per 157 kilogrammes, (346 pounds).....	11 99	13 90
Rye, in the grain, per 115 kilogrammes, (253 pounds).....	4 32	3 57
Barley, in the grain, per 100 kilogrammes, (220 pounds).....	3 70	3 00
Oxen, on the hoof, per kilogramme.....	28½	32
Cows, on the hoof, per kilogramme.....	26	30
Calves, on the hoof, per kilogramme.....	30	34
Mutton, on the hoof, per kilogramme.....	29½	36
Pork, on the hoof, per kilogramme.....	32	32
Beef, hind quarter, per kilogramme.....	29½	†39½
Beef, fore quarter, per kilogramme.....	26½	28
Beef, loin, per kilogramme.....	26½	32½
Beef, neck, per kilogramme.....	15½	14
Veal, first quality, per kilogramme.....	36½	36
Veal, second quality, per kilogramme.....	30½	30½
Veal, third quality, per kilogramme.....	23½	25½
Mutton, first quality, per kilogramme.....	30½	34½
Mutton, second quality, per kilogramme.....	27½	31
Mutton, third quality, per kilogramme.....	23½	28
Leg of mutton, per kilogramme.....		41
Pork, entire or half, per kilogramme.....	30½	29½
Pork, in quarter, per kilogramme.....		31
Pork, salt, per kilogramme.....		21½
Lard, per kilogramme.....		36
Codfish, dry, per kilogramme.....		26
Mackerel, fresh, (each).....		11
Butter, per kilogramme.....	65	66½
Cheese, per kilogramme.....	28½	40
Rice, (East Indies) per 100 kilogrammes, (220 pounds).....	8 70	7 45
Rice, (Piedmont) per 100 kilogramme, (220 pounds).....	9 75	10 50
Rice, (of Java) per 100 kilogrammes, (220 pounds).....		16 00
Beans, per litre.....	10	8
Milk, per litre.....	4	6
Eggs, per dozen.....	19	22

### Groceries:

Tea, price extremely variable, according to quality, per pound, from \$0 78 to \$0 80	
Coffee, roasted, per kilogramme.....	80 88
Sugar, white, per kilogramme.....	26 36

\* This low price is due to the promise of a rich crop in 1872, which promise has been realized.

† The rise in price indicates that France, consequent upon the war requisitions and ravages by the cattle pest, had lost over a million of cattle in one year.

Sugar, cane or moist, per kilogramme.....	from \$0.22 to \$0.24
Molasses, per kilogramme.....	14 14
Soap, common.....	14 18
Starch.....	32½ 32
Sirup, first-class, white, crystal, 100 kilogrammes.....	15 20
Sirup, thick, 40 degrees, 100 kilogrammes.....	11 10
Sirup, liquid, 33 degrees, 100 kilogrammes.....	9 30
Coal, semi-size, ton.....	8 75
Coal, small-size, ton.....	10 00 7 80
Coal, quite fresh, ton.....	7 50 4 90
Wood, hard, oak, &c.....	39 00
Wood, pine.....	18 50
Burning-fluid, per kilogramme.....	26 30
Petroleum, litre.....	13 16

Since August, 1872, the price of bread in Paris has fallen. In March, 1873, it was for 2 kilogrammes 80 centimes, (15.6 cents, gold, United States.) The price of 85 centimes (16.57 cents, gold, United States) is still paid in many quarters. In bread-markets and depots bread can be purchased for 15 cents, which, without being of first quality, is equally nourishing. At this price the working-classes, if they had regular work, would not suffer; but it is the absence or insufficiency of work that produces suffering, the progress of which becomes every day more perceptible. Add to this the inordinate rise in the price of meat, and you have an idea of the cruel privations which weigh upon a portion of the population. The consumption of meat has suffered a reduction during this winter, which proves more than any reasoning the constraint of the population. In consulting the tables of the imports into the market of La Violette we find that the average number of sheep offered for sale, which varied from 15,000 to 17,000, has fallen to 10,000 or 11,000. The number of calves has diminished by half. Oxen and cows show a reduction of one-third. Pigs alone show no noticeable difference, but they have reached prices no longer accessible to small purses.

It would be difficult to draw scientific conclusions from these data. These figures have been collected after a certain joint course, during the two years 1871 and 1872. They are not rigorously-calculated averages, but only simple indications to serve as a basis for much larger and more probable estimates. But certain anomalies are observed therein, rare indeed, but which may be due to accidental and isolated influences, having acted upon the markets, which have been here selected at hazard without any possibility of tracing back to the perturbing cause. This is notably observed as regards calves of a much higher price in 1870 than in 1872, as the increase during the first of these two years had reached to one of the most serious crises. It should be noted that outside of merchandise which has a regular course at the market, (halle,) the prices of alimentary articles are not absolutely the same in all quarters of Paris. Following the general economic law the most populous quarters are always best provisioned, and consequently the cheapest place for provisions; such are the quarter of the Temple, St. Denis street, the markets, &c. The peddlers prefer to go to these quarters, assured that there they will dispose of their merchandise. The shop-keepers always sell a little higher, when the competing peddler does not oblige them to lower their prices. Still, the prices of shop-keepers in populous quarters are less than those in the old communes, annexed to the capital in 1860, such as Batignolles, Montmartre, &c., and especially at those of the elegant and rich quarters, but with extremely scattered population, such as Passy, Chetel, les Champs Elysees, &c., the difference is about one-tenth. It is much the same as regards vegetables. On the whole, the price of living has increased since the war, while wages have remained stationary, in consequence of the too long idle time imposed on workmen by the circumstances, and by the loss of a certain number of markets taken away from the Parisian industry by the enemy. The opening of new centers of sale on the one part, the activity of French agriculture on the other, the perfection of industry on the third; finally, the increase in wages, brought about by the increase of production, will not delay the disappearance of this temporary perturbation.

As regards the price of clothing, this has been modified but little. The stock has long ago been re-supplied, and even the activity of the factories tends more to produce lower prices than higher. The following are the prices of some goods in common use:

	U. S. gold.
Linen, unbleached, for shirts, good quality, 1 franc 10 centimes per metre, per yard.....	\$0 22
Linen, white, 1 franc 75 centimes.....	35
Linen, unbleached, bedding, 1 franc 90 centimes.....	38
Linen, white, bedding, 4 francs 25 centimes.....	45
Flannel, cotton, medium, 1 franc 20 centimes.....	24
Linen for mattresses, good quality, 1 franc 80 centimes.....	36
Calico, 1 franc 10 centimes.....	22

	U. S. Gold.
Muslin de laine, 1 franc 45 centimes .....	\$0 29
Satinet, (nidienne,) medium quality, 1 franc 20 centimes .....	24
Large boots, 15 francs to 18 francs per pair .....	\$3 to 3 60
Robes, called fatigue robes, tissue of wool, 61 centimetres wide, 1 franc 45 centimes per metre, per yard .....	29
Scotch cassimere, in all the new colors, 1 franc 65 centimes .....	33
Scotch cassimere, of 62 centimetres, 1 franc 95 centimes to 2 francs 25 centimes, .....	39 to 44
Poplins, taffetas, striped, 1 franc 40 centimes .....	28
Mohairs, blue or rose, 1 franc 25 centimes .....	25
Foulard, 1 franc 40 centimes .....	28
Grenadines, black, 1 franc 75 centimes .....	35
Grenadines, striped, 3 francs 60 centimes .....	72

The workman has great facilities for clothing himself in Paris. The extraordinary improvements that have been made in the manufacture and organization of Paris manufacturers has greatly cheapened the work. If they could improve the quality while keeping the low price they would do all that should be expected. Since the factories of Vienna and Carcassonne produce cloths at the low prices of 2, 3, and 4 francs per metre, the Paris clothiers furnish to the workman a complete suit, (pantaloon, waistcoat, and frock-coat,) for 39, 41, and 45 francs, (\$7.80, \$8.20, and \$9.)

### III.—RENT OF DWELLINGS.

The price of rent varies according to the quarters, the situation of dwellings, the elevation of rooms, their interior arrangements, whether they front on a street or a boulevard, toward a garden or an interior court-yard. The price for single rooms is very high. Thus, for example, in the center of Paris, Canmartin street, near the station of Saint Lazare and the Madelaine, one room, on the seventh story, quite small, pays 220 francs. At Batignolles one only rents for 80 to 100 francs. In workmen's quarters, like the quarter Saint Anthony, the place du Frêne Menimouart, Belleville, Grenelle, the competition of renters, also the risk of non-payment, very frequent in these places, cause the rents to advance. These little lodgings are often the only revenue of houses, of which they form a part. The proprietor is sometimes obliged to put the tenant out of the house by force, or be deprived of all profits from his property. He loses every year a certain number of payments. To make up for these losses he raises by so much, the price demanded from his tenants. Often, through revenge on the part of renters thus expelled, he is menaced, and even maltreated. These are facts common to all large cities, and all working populations in France, England, and Ireland, America, and Prussia. The same facts are found also to exist, more forcibly perhaps, in London, Liverpool, Dublin, New York, and Berlin. Be it as it may, all these risks increase the price, and raise so much more the taxes of small renters. One single room is rented in these quarters for \$20, \$24, and even \$28; for example, in the neighborhood of the City-hall, or on St. Antoine street, two connected chambers cost \$50, \$56, and \$60, and even \$90 or \$100 on the side of the Madelaine or the great boulevards. If there is added a vestibule, an ante-room, a cooler, giving some variety to the two apartments, it costs \$120 and \$140 on the boulevard Saint Michael near the Luxemburg, on the boulevard Sebastopol, Rivoli street, or in the neighborhood of the Madelaine; a similar one pays \$60 and \$70 at Batignolles or Passy.

Suites of three rooms are likewise extremely dear; less in old houses, badly managed, than in new ones, generally better arranged; the former suiting the small purses of the middle classes, but these are the most numerous, and the demolitions in Paris have greatly reduced the number of small tenements. The raising of prices is attended with unlimited speculations, which have beyond measure pushed forward the works of Paris to so great an extent during the last years of the empire. The large apartments, too numerous and too finely furnished, created with a view to attract the stranger to Paris, and to encourage the development of luxury, excluding therefrom systematically the industrial classes, very well conducted and very skillfully decorated, rise now to \$800, \$1,000, \$1,200 and \$1,400, in the sixth story, for example in the Champs Elysees, on the Boulevard Malesherbes, in the street Lafayette. On the second story certain of these apartments in Rivoli street, on the boulevard Montmartre, rent for \$2,000, \$3,000, and \$4,000. The metre of ground has sold as high as \$500; this undoubtedly is not as high as at Liverpool, where one metre of land reaches as high as \$1,200, but still it is considerable for Paris, which does, relatively, much less business than the English port.

One very curious economical fact is that of the prodigious increase in the value of landed property in Paris within a few years; the 7,802 hectares of surface of the capital, equivalent in value as well as in revenue to one-tenth of the total surface of the country. The revenue of the ground of Paris is nearly twenty times the revenue of land elsewhere, namely, \$53,868,000; the average tax is 6½ per cent., which gives an aggregate value of the real estate of Paris of 4 milliards 144 millions of francs, \$628,800,000.

As regards the gross revenue from houses, according to information collected in 1868 in 374 public sales, it varies, by one-seventh between 4 and 6 per cent., more than half of them between 6 and 8 per cent.; finally as to one-third between 9 and 10 per cent., and even more; and, strange to say, the revenue of houses in the neighboring arrondissements is generally much higher than that of houses in old Paris, because the proprietor exonerates himself as much as he can from the expenses for the preservation of health and the security of his tenants. As regards the net revenue, it amounts to about one-tenth of the value. To judge of it by the results of sales during the last months of 1871, it appears that the value of houses has not been sensibly affected by the war and the insurrection. Nevertheless, in regard to the renters, a perceptible decrease has taken place; this is easily understood. Before 1870 there were 19,000 vacant lodgings, while in August, 1871, the number of vacancies amounted to 54,500 on a total of 650,631 apartments. The price of building-ground in the interior of Paris has likewise decreased. Speculation had caused it to rise beyond all measure. Thus it has been seen in 1869, when the metre of ground rose to \$294 at the corner of Rambuleau and Pierre Lescot streets; to \$260 on the Theatre-Français place; to \$360 between Voisine and the Fourth of September street; finally to \$500 on the new Opera Place.

From 1825 to 1870 the price of ground has risen on Saint Lazare street from \$11.40 to \$140; on Saint George's street from \$15.80 to \$120; on La Ferenes-des-Yathumins from \$42 to \$230; on Albosy street from \$8.40 to \$78; on Pascal street from \$4.80 to \$15; Quarter Francis I, from \$8 to \$50 per square metre.

But the situation seems to have changed in a notable manner. Mr. De Lubez, at the meeting of the Politico-Economical Society in July, 1872, mentioned the case of a building constructed in Paris before the war having cost, for ground and erection, \$70,000, which was placed under adjudication at the price of \$50,000, then at \$40,000 and \$30,000, without finding any bidders.

Regarding occupied lodgings, they yield a revenue of \$40,980,000 for 66,000 houses in Paris, an average of \$621 instead of \$470 in the year 1825.

This revenue is thus distributed: \$7,770,000 for 259,604 lodgings, at less than \$50; \$13,770,000 for 153,346 lodgings, at less than \$100; \$6,840,000 for 38,125 lodgings, at less than \$200; \$3,600,000 for 11,866 lodgings, at less than \$300; \$9,000,000 for 17,851 lodgings, of over \$300.

It has been attempted of late to remedy the high prices of lodgings by building houses especially for mechanics and small retail shop-keepers. Up to the present time nothing has been so successful as the houses on Arras street, No. 3, by the society of masons and stone-cutters, for co-operative society *l'épargne immobilière*, (real-estate savings society.) The ground contained a surface of 715 metres, of which 624 are built upon, and 91 are in litigation. The buildings are of two kinds—these intended for dwellings and stores and those designed for public meetings. The first contains on the ground floor five shops with floor-room 190 metres each; in the second story, two rooms to be divisible according to the needs of the shop-keeper or other occupant; in the third, fourth, and fifth together, 40 lodgings. All lodgings are remarkable for their excellent distribution, for their good arrangement, and for the comforts they unite.

The kitchen is no longer used, and has been replaced by a heating-stove put into the interior of the principal room. This apparatus will give as much heat as is needed in the room in which it is placed, and is so contrived that no culinary vapors are perceptible in the room. They allow the tenants to cook while going on with their own work, which, as the workers earn but little, is a great advantage.

In all these lodgings there are arrangements made for lighting and heating with gas. In all the stories there are city water, wash-tubs, and water-closet on the closed system. The bed-rooms are parquetted and ornamented with looking-glasses. These lodgments rent at \$20 to \$79.20, a really moderate price. Such advantages have been readily appreciated by the public; for 40 lodgings there were 10 renters before the work was completed.

The second building combines a large hall with 1,200 seats, and will accommodate 1,500 persons. It is well lighted and consequently meetings held in the day-time have no expense for light. The price of seats is much less than in other halls in Paris.

Besides this large hall there are in this same building small meeting-rooms which can hold eighty persons at very moderate rents, also for the accommodation of the public whenever required. All these buildings are perfectly healthy, being of brick and iron, and very solid.

The real-estate savings society deserves commendation for carrying out this project, which, in addition to its philanthropic purposes, has achieved a remarkable financial success.

In Paris a furnished room rents very high. Miserable chambers cost 400 and 420 francs. It is by no means a rare thing to have to pay \$10 or \$12 per month for one furnished room. The price of large apartments furnished in proportion very much greater.

The events of 1870-71 have brought about a decline in rents, but only in high rents. Regarding the low rents, they have only had the effect to suspend the rise. The emi-

gration of strangers and even of provincials, frightened beyond measure by the excitement of the capital, has been considerable. The insurrection has depopulated a good part of the city, as much by the deaths in the civil war as by deportation and emigration of a large part of the inhabitants. Besides, the population of Paris, which, according to its normal rate of increase, would, from 1866 to 1872, have been augmented by about 200,000, has increased only about 5,000 or 6,000.

It is difficult to foresee how the crisis will end, which was caused by the non-occupancy of large tenement-houses. Several building societies have already failed. The grounds were bought at too high a price; the cost of the labor and material was very high. It is difficult, therefore, to lower the price. These apartments cannot be transformed into small lodgings. Tranquillity only can furnish a remedy, by encouraging the return of strangers and citizens from the departments to Paris. In the quarters of Passy and Anteuil, placed directly under the fire of the batteries during the second siege, the houses have been greatly damaged; quite a number of the tenants have abandoned them, and the proprietors sell them at prices exceptionally low. This, however, will last but a little while. Persons of the middle classes, working-people, widows, journalists, men of letters, as well as some capitalists, have a desire to enjoy the verdure and the pure air in the neighborhood of the woods of Boulogne. The construction of new railroads and tramways will hasten the repeopleing of these quarters.

#### IV.—PRICE OF PROVISIONS.

I have already referred to the prices of various articles of food. The daily expense for food varies according to usage, habits, taste, and, taking a basis of comparison, people practicing economy intelligently may supply themselves with sufficient for their daily wants at a cost of 40 cents, or even 35 cents, each. A woman, who, in her employment, expends less of muscular force, may sustain herself with an expenditure of 20 or 22 cents. Many expend less, but in such case no doubt the health is injured and the strength declines. This is how a large number of working-men live:

Two meals per day, at 11 and 6 o'clock. At 11 o'clock, or noon, an ordinary, sometimes meat, half ration, 6 cents; at 6 o'clock, soup, 4 cents, half a ration of meat, 6 cents, a dish of vegetables or a piece of cheese, 4 cents, a chop, 6 cents; besides the bread which a laborer carries ordinarily with him from reasons of economy, and of which he consumes about two pounds, say 9 cents. This gives for the day a sum of 35 cents. In a family the individual expense is notably reduced, thanks to the advantages of living in common, which diminishes proportionally the sum of general expense. Before the war, some boarding-houses were found that furnished passable fare for about 35 cents per day, in the quarter "des Ecuies;" they had two meals: soup and a plate of meat *de resistance*, moreover a dessert and wine, in the morning; soup, two plates of meat, vegetables, a dessert and wine, for supper.

Now, since the war all prices have augmented at least one-fourth. There were also, before the siege, restaurants where one could dine at 16 cents, and breakfast for 14 cents. This was neither luxurious nor of superior quality, but one could feel satisfied. All these establishments have disappeared or have advanced their lowest prices to 36 cents.

The bouillon establishment of Duval, which served portions of meat at 5 and 7 cents, has raised its price to 10, 12, and 15 cents. The price of fruits has likewise increased in these establishments, as well as that of wines; and most restaurants have followed this example. It may be said that the price of restaurant living has risen one-fifth at least, since the late events which have deluged our country in blood.

For workwomen, the quantity of indispensable nourishment is less. They eat less bread and drink less wine than laborers do generally. They prepare at least one meal at their homes; they can also live at 22 cents, 20 cents, and even less. The woman herself plans, and, thanks to a spirit of economy truly admirable, almost miraculous, does most honor to the household affairs with very little. There is certainly in a majority of women more morality, resignation, courage, and less wants than in man. It would be desirable, however, that the limit of remuneration for women's work be extended, and the only way to do this is to give it a higher value by more instruction, greater skill, fewer hours of work in the day, and better pay for the work. Thus the wages will be raised and women will be enabled to procure for themselves the necessary supplies of food for their sustenance and comfort. This is a question of life and death, and it is the key to the future of all that portion of the French people who constitute the bulk of the population of the large cities.

GEORGE RENAUD.

#### SILK INDUSTRIES OF LYONS.

The following information in regard to the industries of Lyons was obtained for the author of this work and forwarded by the United States consul of that district.

The translation from the French and the valuable explanatory notes were supplied by a practical silk manufacturer, Mr. T. Nelson Dale, jr., of Paterson, New Jersey.

*Answers to questions concerning the industries of Lyons (France) submitted to the "Conseil des Prudhommes" for the silk industry of Lyons, September, 1872.*

### § I. GREAT INDUSTRIES.

#### I. What are the great industries of the department?

The chief and by far the most important within the jurisdiction of the council is the silk manufacture with its numerous auxiliaries.

This industry includes, aside from the raising of silk-worms, cocoon-winding, silk-throwing, branches which, with a few exceptions, are prosecuted within the Lyons district:

1st. The dyeing of thrown and spun silk, worsted and cotton yarns, the dyeing and printing of piece-goods, designing and the engraving of rollers for the same.

2d. The weaving of plain and figured goods, taffetas, satins, velvets, foulards, "lampas," materials for ecclesiastical and upholstery purposes.

3d. The making up and winding of trams and organzines; warping, beaming, mounting, and starting of looms; the making of headles with or without mails; and the stamping of pattern cards.

4th. The shearing of velvets, watering, embossing, finishing, and sizing of piece-goods, and the cleansing of pieces soiled in process of manufacture.

And, finally, operations connected with weaving and embroidering in gold and the manufacture of trimmings, comprising the drawing of gold, silver, and brass into threads and strips; the covering of silk and cotton threads with strips of foil; ornamental trimming, embroidering, the manufacture of bindings, hat bands, chenille, goods with veiled edges and fringes, &c.

Tulles; hosiery and gloves of silk, cotton, and worsted; plain and figured laces of silk and cotton; stocking-knitting and crochet-work.

The manufacture of felt, with plush, straw, and cloth hats.

#### II. What is the condition of the operatives in these industries?

There are two classes of weavers—master weavers, who own the machinery; and journeyman weavers, working under the former for half the price paid for the weaving.

The works generally contain from one to four looms—rarely more.

The gross earnings of the master vary from 4 to 6 francs, (80 cents to \$1.20;) those of the journeymen, from 2 to 3 francs per day, (40 to 60 cents.)

All extra expenses are defrayed by the master.

Journeymen dyers work by the day or hour, according to the custom of the employer, ten hours constituting a working day.

Most of the men earn from 4 to 5 francs, (80 cents to \$1;) a few as much as 5.50, (\$1.10,) per day.

In addition to the journeymen, laborers are used for work which does not require special skill. They work 11 hours, and earn from 3 to 4 francs, (60 to 80 cents,) averaging 3.50, (70 cents.)

Some of the manipulations before and after the dyeing, such as the undoing and making up of silk, require female labor, which is paid at the rate of from 2.25 francs (45 cents) to 2.50 (50 cents) per day of 11 hours.

Overtime is paid 50 to 60 centimes (10 to 12 cents) per hour for men, and 30 (16 cents) for women and apprentices.

From these rates a deduction should be made for loss-time.

\* "Council of selectmen for the silk industry;" a committee composed of both employers and operatives, for the amicable settlement of controversies, established by law in 1866, as a court of arbitration.

† Rich silks with satin ground and large taffeta figures in relief. The reverse of damask.

‡ Rolling together a number of skeins into a hank, and then knotting it to prevent the silk from getting snarled. This is done both before and after dyeing.

§ Mounting: Passing the warp through reed and harness. Starting: Regulating the number of shots, of shuttle per inch of fabric, also the tension of warp, &c., to make the required quality of goods.

|| Some headles are made merely with a loop for the warp-threads, others are provided with small steel or brass rings.

¶ The design is first made on paper, then the cards for the loom are stamped accordingly.

\*\* The silk belongs to the manufacturer. He sends it out from his office to the dyer, winder, weaver &c., and pays them per weight or length for their labor.

†† These "works" consist simply of a large room of sufficient size to accommodate the looms, and of a small adjoining bedroom and kitchen combined, for the weaver and his family.

‡‡ I take it there are no worsted tulles or laces, as the original seems to imply.

§§ Organzines and trams come from the spinner (throwster) done up in knotted rolls. The dyer has to undo these, straighten out the skeins, count them, and mark them with variously knotted strings, so as to distinguish the lots. After the dyeing, the silk is made up into rolls again.

The moral influence of loss-time is at least as bad as its material result.

Operatives without work live on credit at first, run in debt, become discouraged, are reduced to poverty, and poverty is a bad adviser.

In Lyons, two-thirds of the hands employed in dyeing lose on an average 20 days a year, and the other third as much as 40 or 50 days.

Higher wages are paid for the weaving of silk trimmings than gold trimmings; but, owing to the little loss-time made in weaving the latter, the workmen of both trades earn the same in amount, an average of 3.25 francs (65 cents) per day.

The manufacture of trimmings by hand furnishes occupation to about 400 women and 100 men, at the rate of 1.75 francs (35 cents) per day; but this kind of work is gradually being replaced by loom-work.

In both of these industries the master weaver, who furnishes the looms, makes a net profit of 1 franc (20 cents) a day per loom.

The earnings of the master metallic-thread makers\* at piece-work cannot be readily estimated; workmen earn about 3.60 francs (72 cents) per day of 11 hours, and women 2.50 francs, (50 cents.)

In gold-thread drawing, men earn 3 francs, (60 cents,) and women 2.25, (45 cents.) Masters work under the same conditions as master metallic-thread makers; ten hours constitute a working day.

Embroidering and fancy trimming are done almost exclusively by women; they earn on an average 1.75 francs (35 cents) per day.

Tulle-makers on piece-work receive 1½ centimes per 100 threads,† for plain goods and at that rate earn, on an average, from 3 to 4 francs (60 to 80 cents) per day.

In the hat manufacture the operatives are generally on piece-work, and earn—men, 3.25 francs (65 cents,) women, 1.37 francs (28 cents) on an average, loss-time deducted.

### III. *Are there a great number of hands employed in these industries? Estimate the number of men, women, and children in each.*

The number of men and women employed in weaving amount to about 115,000; 35,000 of whom live in Lyons and vicinity, and the remaining 80,000 inhabit the department of the Rhone and the neighboring departments of the Ain, the Isère, and the Loire, where there are large manufactures of woven goods, as well as many private looms, worked for manufacturers in Lyons.

This number (115,000) is composed of 56,350 men, equal to 49 per cent.; 50,635 women, equal to 44 per cent.; 8,015 children, equal to 7 per cent.

There are two classes of dyers—color-dyers and black-dyers, numbering together from 3,500 to 4,000, proportioned as follows:

Men, 75 per cent.; apprentices, from 13 to 18 years of age, 10 per cent.; women, 15 per cent.

The manufacture of gold and silk trimmings furnishes occupation to about 1,000 men and 500 women; metallic-thread making to only 100 men and 600 women; gold-thread drawing, to 150 men and 300 women; embroidery, to 200 women; fancy trimming, to 500 women.

There are about 4,000 persons engaged in the manufacture of tulles in Lyons and its suburbs, viz: 2,500 men, (overseers included), 1,000 women, and 500 children.

The number is much larger in the places about Lyons where the tulle embroiderers (women) live.

There are two kinds of hat-makers:

1st. Fullers and finishers, (or cleaners?) numbering about 1,500 men.

2d. Those employed in trimming hats, in pulling out the coarse hairs from the fur, and in cutting the fur from the skin for making felt, numbering some 800 women.

The winding of thrown and spun silk, worsted and cotton, is done entirely by women operatives, apprentices, and overseers.

One winder should be reckoned for every five weavers, making 23,000 winders for the 115,000 weavers in Lyons.

The overseers (women) earn on an average from 3 to 4 francs per day.

Each "winding-shop" contains from one to four winding-frames,‡ which are the property of the overseer alone. The hands are generally engaged by the year, at the rate of from 150 to 250 francs, board, washing, and lodging included.

Warping is done on the same plan. There are about 3,000 warpers, earning on an average from 4 to 5 francs per day. The hands are engaged on the same terms as the winders, with this exception, that they receive a bonus of 30 francs a year.

\* i. e., winding or colling a narrow, thin strip of metal, gold, silver, or brass, spirally around a thread or number of threads of cotton or silk, so as entirely to cover up the cotton or silk. The metallic thread thus made is used in the manufacture of military trimmings, &c., &c.

† 100 threads one metre long, (39 inches.)

‡ These frames are circular and rotary, operated by foot. The operative, remaining seated, causes the portion of the frame which carries the skeins to revolve past her, and regulates each skein in turn.



#### IV. *What is the general character of the relations existing between employers and operatives?*

In the weaving and in the tulle industries, instability is their principal feature. Employers and operatives are entirely independent of each other. They make and close engagements with each other with the greatest facility.

The question of interest is the ruling one. The workman works for his employer, and the employer pays him for it.

In this, as well as in the other industries within the jurisdiction of the council, the relations between employers and operatives are generally amicable.

Measures calculated to reconcile the different interests have been carried into effect by the efforts of the "council" during the last few years, and have produced the happiest results.

Among gold-weavers and trimming-makers, differences arising out of the question of salary have created a certain uneasiness in the relations of employer and operative, especially since 1869. Before that time the situation was more satisfactory.

#### V. *Give an account of the institutions for the improvement of the condition of operatives.*

Operative weavers have established, with the consent of the government, a joint-stock company for the manufacture and sale of silk goods.

They have also formed a "protective and industrial society" for the purpose of resisting a reduction of wages, and furnishing the members with information on all matters related to their work.

There are a number of co-operative stores in different parts of the city for the sale of groceries at retail. Some of them have added to their business the sale of bread, charcoal,\* and sausage-meats. It is desirable that these societies should grow, extend, and multiply themselves, so as to popularize, in their experimental stage, the various kinds of co-operative societies for purposes of production, credit, and consumption.

There is a loan board in Lyons established by government for the purpose of affording relief to master workmen in distress (for want of orders.)

Those provided with good recommendations can borrow a sum not exceeding 40 francs (\$8) for each of their looms for plain goods, and 50 francs (\$10) for each one for figured goods.

The rate of interest is 5 per cent. If the loan is not returned when due, the company is re-imbursed by a retention of wages to the extent of  $\frac{1}{4}$ .

As regards the dyeing industry, some employers have endeavored to better the condition of the workmen by assisting them by means of voluntary contributions in becoming interested in the "mutual-aid societies" and "pension banks," or by giving them, in the way of a premium, a share in the profits of the establishment, or else by providing them with a physician in case of sickness.

The workmen have formed a "mutual society," which is at present in a flourishing condition. Employers are admitted as honorary members. A few journeymen dyers belong to the "mutual-loan societies" and "co-operative stores" of the place. In 1863 some journeymen dyers formed themselves into a "co-operative joint-stock company, with a variable amount of capital." Twenty men are employed in the works.

The dyers have also established a "protective and industrial society" to oppose a reduction of wages and afford relief to the victims of accidents (members only) and to those who have been rejected by the mutual societies. Members pay 50 centimes (10 cents) a month.

Hatters have five "mutual-aid societies" in the department, including the women hat-trimmers' society.

In the tulle and trimming industry there are no such organizations.

#### VI. *Has there been an increase in wages in the department?*

The question of wages is a vital one, especially in commerce and the more important manufactures. It is one of the most formidable problems of modern society. For several years wages have been gradually and regularly increasing with a corresponding increase in the prices of the various articles manufactured. Thus, the price of velvets has increased 50 to 60 per cent.; "patterns,"† figured and fancy goods, 30 to 40 per cent.; taffetas and plain goods, 15 to 20 per cent.; dyeing (during the last 2 years alone), 10 to 12 per cent.

In the tulles manufacture, the rates of wages remain on an average nearly stationary, following the fluctuations of supply and demand. Men earn 4 francs, (80 cents,) and women 2.50 (50 cents,) and women embroiderers working at home in the country earn from 60¢ centimes (12 cents) to 1.50 francs (30 cents.)

In the hatters' trade there has been a reduction of 30 per cent. in all hand work for which machine work has been substituted. The price of "brushed hats, Flemish style,"‡ has increased 20 per cent.

In gold-weaving, &c., the rates have increased 20 per cent., and in the manufacture of trimmings, 17 per cent.

\* Charcoal is extensively used in France for cooking and heating purposes.

† Goods in which there is any variety in the play of the threads, (as serges,) simple designs, but not flowers, figures, &c.

‡ Hats with a long silk plush.

*VII. Has there been an increase in the cost of the necessities of life?*

Yes, to a remarkable extent. The price of articles of food has risen from 30 to 40 per cent. The price of meat, especially, has increased to such an extent during the last few years as to make the condition of the working classes worse and worse.

*VIII. Under what conditions are agricultural and industrial pursuits combined?*

The population of the Lyons district is engaged almost exclusively in manufactures; that of the neighboring departments is engaged in both agriculture and manufactures, pursuing them alternately, according to the season. Those who are thus employed are weavers, hatters, embroiderers, &c. Their lot is, in general, preferable to that of the city operatives, who receive higher wages, but whose expenses are greater and heavier, who are subject to more "loss-time," and whose occupation is more uncertain.

*IX. What is the state of education among the operatives? Do the children attend school?*

After considering the material wants of the workman, if you inquire into his real condition, it will have to be acknowledged with regret that not only is his education very limited, but in some cases entirely neglected. Parents pressed by straitened circumstances only send their children to school up to their twelfth year. The knowledge which they acquire there is very elementary and soon forgotten in the midst of surroundings so unfavorable to its retention and so much more unfavorable to its cultivation.

There are indications of progress in the education of the laboring-classes, but there is much wanting. The native Lyonnese can generally read and write. Parents are usually willing to send their children to school, and the attendance is pretty regular; but the number of schools is far from sufficient in many districts of the city, and in some there are none at all. In the trimming industry operatives have about the amount of education necessary for their occupation, and their children generally attend school.

*X. Has any society been established within the department for the purpose of enabling workmen to become owners of real estate? What is the status of these societies—chartered or independent? What share have employers had in them? What have been the results? What is the number of the "mutual aid societies?"*

There is no institution with such an object in view; but manufacturers cheerfully make advances toward the purchase of a loom to any one of their workmen whose work has won their approval. In this way workmen become master-weavers. The loan is refunded by retaining one-eighth of the wages. Ten per cent. of the present master-weavers began in this way.

The "mutual aid societies" are very numerous. They embrace nearly all the industries represented in the council. There are many societies of this kind, with a large number of participating and honorary members.\* Especially worthy of mention is the great weavers' society of Lyons, under the patronage of the chamber of commerce. Its members number 5,000, viz, 1,600 men and 3,400 women. The former pay 2 francs (40 cents) a month; the latter 1.50, (30 cents.) In case of sickness, the society provides its members gratuitously with medicines, the attendance of its physician, and a subsidy of 2 francs (40 cents) and 1.50 francs (30 cents) per day for men and women respectively.† An additional charge of 6 centimes is made on every kilogramme of silk (a trifle over  $\frac{1}{2}$  cent a pound) weighed at the "public silk-conditioning office,"‡ for the benefit of this society. The amount received annually from this source, 100,000 francs, (\$20,000,) is set aside for the purpose of duplicating the deposits of the members of the society at the "pension bank."§

The trimming-makers have a "mutual aid society," to which nearly all the employees belong as honorary members.

\* In 1857 there were in France 3,860 of these societies, with a "participating" membership of 450,000. In 1860 the number of the societies had increased to 4,410. Some of them are under government supervision.

† Some, if not all, of these societies defray also the funeral expenses of members.

‡ As silk absorbs moisture very readily, its weight varies according to the dampness of the atmosphere. To secure dealers and buyers against losses arising from variations in the weather and from fraudulent moistening, public offices for ascertaining the amount of moisture in silk have been opened in all cities where silk is largely used for manufacturing purposes. A sample of each bale is carefully weighed, then perfectly dried in a heated metallic box and weighed again. 11 per cent. is added to the weight dry, which is considered as representing the amount of moisture absorbed by silk from the atmosphere on an average day of the year. Silk can absorb as much as 33 per cent.

§ All raw silks pass through these offices. Fully registered and signed certificates of tests are furnished, not only of the amount of dampness, but also of that of gum and foreign substances in raw and thrown silks, and of the average size, strength, elasticity, and of the twist and general nature of silk fibers, all of which may be of consequence to the manufacturer.

¶ An institution under the control of a government commission, having for its object the assurance of annuities to the superannuated railroad companies, omnibus lines, and other corporations, sometimes makes deposits in this bank for pensioning off its employees when they become too old to work. The number of policy-holders in 1858 was 10,331, of whom 3,699 were operatives.

**XI. Do joint-stock societies tend to supplant private manufacturing-enterprises?**

By no means. Several unfortunate attempts have been made by workmen in that direction, but they seem to have abandoned the idea. There are no such efforts to report on the part of manufacturers.

**XII. Are there any instances within the district of large manufacturing-enterprises being conducted by a company or society of workmen?**

There are none, except that of the weavers' society and that formed by a few journeymen dyers, which are still in operation.

**§ II.—MINOR INDUSTRIES.****I. What are the minor industries of the department of any commercial importance?**

In the silk manufacture the minor industries are pasteboard-box-making, making packing-cases, headle-making, twisting and drawing in,\* beaming, warping, reeding, pattern-card-stamping, the manufacture of Jacquard machines, shuttles, reeds, and other weavers' implements, and the construction of looms.

There are also minor industries connected with dyeing, as the dyeing and cleansing of piece-goods soiled in process of manufacture, (and garments.) A very moderate investment suffices for a small business which is sustained by local wants. The owner does the work himself, and in busy times employs one or more assistants.

The laundry business should also be mentioned, which is moving from the city to the country. It is becoming quite extensive, and even sustains some large establishments.

**II. Are the minor industries inclined to maintain or extend themselves, or become absorbed by the great ones?****III. If they are becoming absorbed, state the most apparent cause of it.**

They are rather inclined to maintain themselves, because of the cheapness and simplicity of the necessary machinery and implements.

There is no danger of absorption, either at present or in the future.

**IV. Are there any minor manufactures in the department carried on by a company or society of workmen?**

None.

**V. Has there been an increase in the rates of wages in these industries? Have the prices of the necessities of life increased?**

The same answers are given as to questions V and VI, under the head "Great industries."

The increase in wages is, on an average, only from 20 to 30 per cent.

**LETTER FROM THE UNITED STATES CONSUL AT LYONS.**

The following letter from the consul of the United States at Lyons gives some additional facts in regard to the cost and condition of labor in that seat of the silk industry:

UNITED STATES CONSULATE,  
Lyons, France, November 7, 1873.

DEAR SIR:

On the whole there is a very great difference in the nature of work and the mode of living of the workmen in this country and in the United States, and in my opinion it is almost impossible to judge of the relative agreeableness of the work and the well-being of the laborer by placing the kind of the former and the cost of the various articles of food, clothing, and of house-rent in the two countries into a comparative position with the earnings in wages.

The labor market of the Lyons region is governed and absorbed to the greatest extent by the manufacture of silks. This complicated industry divides itself into a great number of separate manipulations, so much so that—a few cases excepted—the manufacturers cannot keep the progress of their work under their direct control. Their business consists principally in distributing the materials as they advance to the different degrees of perfection, among the various sections of their workmen. These take the materials to their homes, and there perform the task assigned to them. In this way it happens that a lot of silk, after being spun and dyed to be made into a piece of dress-goods, passes eight or nine times through the manufacturer's office before the piece arrives finally on his shelves, ready for sale.

\* Twisting and drawing in; i. e., attaching the threads of a new warp, one by one, to the thrums or ends of a warp which has just been woven out, and then drawing the new warp by means of the thrums through the harness and reed. In case the harness and reed are used for the first time, the threads have to be passed through both by means of hooks.

This mode of proceeding and the nature of the work admit the employment of all male and female members of a family above the age of twelve years. By thus accumulating the wages, a family earns sufficient to meet all its wants, and, besides, a surplus for times of sickness or want of employment, although the daily wages appear to be very moderate.

The earnings of an adult in the various kinds of labor connected with the silk industry are from 2 to 5 francs (40 cents to \$1) a day. A single person may have good board for \$1.75 to \$2 a week; lodging for 50 to 75 cents a week.

A family of two adults and one child of about fourteen years earns not less than \$10 a week; they may live comparatively well in expending from \$3 to \$4 in the same time, while they can rent an *appartement*, containing rooms for their utensils, (looms, &c.,) one or two bedrooms, and kitchen for from \$60 to \$80 a year, or about \$1.25 or \$1.50 a week.

The classes of people in question live principally on soup, cooked with vegetables, meat, bread, and light red wine; the latter article is used by everybody and by both sexes, and forms an essential portion of the daily food.

Coffee is comparatively neglected, and replaced by a thick and very substantial broth.

Tea is used only in case of sickness. Of bread, only white (wheaten) bread, and of meat, fresh beef and mutton, have the preference; occasionally smoked ham and sausages come in by way of variation.

All French men, as well as women, are perfect cooks, and understand how to prepare with the above main ingredients most excellent and healthy dishes. The light red wine taken with their meals costs from 24 to 40 cents a gallon.

The silk industry employs some 80,000, perhaps 100,000, looms, demanding with the auxiliary manipulations about 200,000 hands. All other labor is necessarily influenced by such an army as regards wages and conditions.

After these few remarks, respectfully made, and intended for the easier appreciation of the situation of the French laborer in and about Lyons, I have the honor to return the inclosed blanks, filled up as far as the case admits.

I am, sir, &c.,

P. J. OSTERHAUS.

Hon. EDWARD YOUNG,

Chief of Bureau of Statistics, Treasury Department, Washington, D. C.

#### WOMEN WORKERS IN PARIS.

The following extract shows the number of women employed in various branches of industry in Paris:

In Paris alone above 178,000 females earn their livelihood in some department of trade, 161,795 being *bona-fide* workwomen; and of these, half are engaged in trades having to do with dress, the grand total of 130,625 being divided among twenty-two occupations in the accompanying proportions. Seamstresses number 51,169; bleachers, 20,396; shirt and linen makers, 20,579; artificial flower and feather makers, 7,432; milliners, 6,453; boot and shoe makers, 6,284; tailoresses, 4,619; hat and cap makers, 3,138; glove, breeches, and dress-makers, 2,479; embroiderers, (of women's attire,) 2,353; button-makers, 801; cane and umbrella makers, 529; comb, brush, and dressing-case makers, 525; dyers, 484; embroiderers in silver and gold, 463; perfumers, 392; straw-hat makers, 261; furriers, 250; stocking-makers, 138; barbers, hair-dressers, and wig-makers, 126; gaiter-makers, 110; calenderers, 87; wooden-shoe makers, 16. Under the somewhat pretentious division of "Science, letters, and art," we find enumerated 2,554 book-binders; 779 employed in printing, engraving, and lithography; 390 in paper-making; 93 in the manufacture of musical instruments; 91 in making various necessities for the writing-table; 25 in type-founding; 73 engaged at theaters and concerts; 78 on newspapers and reviews, and 67 editors of books and music, (actresses, singers, and newspaper editresses are classified with the followers of liberal professions.) Among 7,788 ministers to luxury and amusement are 256 makers of toys and playing-cards; 261 producers of works of art; 5,666 workers in gilding, jewelry, and allied callings; and 1,443 women employed in tobacco-manufactories. Of 1,589 workwomen connected with the commissariat, 258 are engaged at restaurants, taverns, and such places of entertainment; and precisely the same number are set down as bakers. The preparation of ice, chocolate, and cream occupies 210, and 78 are employed by pastry-cooks. One only figures among the millers, two among sugar-refiners, and five among the brewers. Then there are 133 finding work as preserve-makers; 11 as potted-meat makers; and 17 in the concoction of preserved vegetables. The dairywomen number 13, the "roasters" 6, water-carriers 8, and the butchers—yes, the butchers—140; while 18 strong-minded dames earn their bread in the slaughter-houses. After that we are not surprised to learn Paris boasts 9 female boat-builders, and 245 "wheelwrights, carriage-makers, farriers, and saddlers." Military equipments afford employment to 291 females; 40 help to produce fire-arms

and ammunition, and 3 to make swords and bayonets. Eight thousand seven hundred and ninety-three workwomen are employed in the manufacture of textile fabrics, and 2,859 in the production of articles of furniture; 782 of these being catalogued as cabinet-makers, 1,123 as upholsterers, 758 as bedding-makers, and 39 as looking-glass makers. Connected with building, we are astonished to see 3 architects, 8 sawyers, 46 carpenters and joiners, 8 masons and slaters, 99 marble and stone cutters, 7 chimney-makers and sweeps, and 1 plumber; then come 75 paper-hangers, 89 painters, glaziers, plasterers, and decorators, and 10 ornamental-decorators. Ceraemic manufactories afford employment to 146 women, chemical works to 376, candle-factories to 53; 13 are engaged in the making of gas, 445 in various methods of manipulating leather, 299 in metal and hardware work, 225 in turning, box-making, and other trades coming under the heading of wood, and 37 are employed in the manufacture of cast iron, steel, copper, and other metals. With the exception of the milliners, who are boarded by their employers, and receive an annual salary, embroiderers appear to be the best paid, since they can depend upon earning from 14 to 17 shillings a week all the year round; while 2 shillings a day represents the income of the ordinary good workwomen in most other trades.

### THE WORKING WOMEN OF FRANCE.

A series of articles under the above caption, translated from the French of M. Jules Simon, which recently appeared in the New York Evening Post, are of such interest that copious extracts are here presented:

#### ARTIFICIAL FLOWERS.

The best Parisian artificial flowers may well dispute the palm in point of freshness of appearance with those which bloom in gardens. The lovely women of both worlds buy at Paris the flowers with which they dress their hair. Italy formerly stood first in the manufacture of flowers, silks, and laces; subsequently Lyons was celebrated for its flowers. At present Paris stands pre-eminent. Nearly five thousand women are engaged in this branch of trade. The most skillful are artists who study natural flowers with real enthusiasm, and imitate them with greater fidelity than the best painters. Their receipts sometimes amount to three francs for a day's work of eleven hours. A *fleuriste* can live very comfortably, if she is not seized with a desire to deck her own person with the wreaths she makes and exhibit them at the *Mabille*.

#### CUTTERS OF PRECIOUS STONES.

Every one understands why Paris should be the center of flower-making, but by what strange and inexplicable anomaly has the cutting of precious stones been established on the summit of one of the Jura Mountains? Diamonds are cut at Amsterdam; but rubies, sapphires, aquamarines, amethysts, and opals are all cut and polished in the heart of the mountains. These rude children of the Jura remain faithful to the occupations and customs of their fathers, and all the riches which pass through their hands do not make their cottages appear colder or their bread harder. They have lately made some advances in analogous branches of trade. The women make false stones with a skill which is unequalled. They pierce rubies as pivots for watches, and even begin to make mosaics with stones sent from Florence. Their work-tables are placed near the windows of their cottages, and there father, mother, and children work all day, when household cares, preparation for meals, cutting wood in the mountains, or the sowing of some poor piece of ground does not call them away. The women who cut rubies often earn tolerably good wages, yet, notwithstanding this, wages of one franc fifty centimes (30 cents) are the exception. The average is seventy-five centimes, (15 cents.)

#### STRAW-HAT BRAIDERS.

Quite an important branch of trade, and one which has to do with the feminine toilet, is the manufacture of straw hats. Nancy is one of the great centers of this industry, and, if the merchants are to be believed, they export hats even to America. Most of the men's so-called straw hats are really made of the bark of the *catanier*, or *Bourbon palm*. The Nancy manufacturer buys the bark, has it dressed and torn into long strips with a sort of metal comb, and then sends it to be braided and made up. The maker is paid fifty centimes (10 cents) for a hat. It is necessary to work all day, and to be far more skillful than the generality of workwomen, in order to finish two. Panama hats, and those made of finely-sewn plaits, are made in France, the first from the leaves of the *ypypa*, which come from Panama, and the second with plaits bought at Florence, and charged with an exorbitant duty. It is this duty, and, in a few instances, the fine quality of the raw material, which explains the enormous cost of some hats. A Panama hat which cost two thousand francs was on exhibition some years ago at a Paris store. The Nancy manufacturer had sold it for sixty francs, and he had probably paid three francs to the woman who braided it.

## TOY-MAKERS.

Toy-making gives employment to a large number of poor women. There are some women whose work consists in pasting colored paper on myriads of tiny toys. A very few of the best workers earn excellent wages; the others vegetate during the good season, and are subjected to long periods of forced idleness. In November and December there are not enough women to dress the dolls and ornament the bonbons. Those who work have to sit up all night and strain every nerve. To this activity succeed, without the slightest transition, long months of forced idleness.

## GLASS-CUTTING.

Glass-cutting comprises four different operations: smoothing down, which is done on an iron wheel, with pure, fine, damp sand; the first polish done on a fine wheel, the second polish done on a wooden wheel, with powdered pumice-stone, dampened, and the final polish done on a cork wheel, with dry powdered tin. If glass is to be engraved, recourse is had either to a diamond point, or to a process which is quite complicated, and consists in covering all the surface with a slight varnish of wax and turpentine, drawing the design on the wax and pouring fluor-hydric acid on the parts laid bare by the burin. The business of cutting is generally intrusted to women in the factories. They do it marvellously well, as it requires only patience and skill. Unfortunately, it is a very unhealthy trade, as the necessity of bending over the wheel and having their hands in water all day, exposes them to dangerous pulmonary affections.

Women are employed, in considerable number, at the cigar trade, at which they make very fair wages.

## OTHER TRADES.

Women are to be found also in stone-cutters' shops. There are some among gilders, bronze-mounters, bronze-varnishers, pewterers, engravers, manufacturers of polished-metal plates, jewelers, gold-beaters, &c. Most of the women employed in these trades are burnishers, polishers, and borers. It is not at all fatiguing work, and pays well. A skilled workwoman can earn four francs a day and more. Her wages depend on the rapidity with which she works. Many of the women do not earn more than one franc; they then become discouraged and seek some other trade. The borers put the finishing touches on carvings of copper, bronze, and even more precious metals. Fewer ornaments of bronze and copper are now made than in the early part of this century, and for three months of every year the borers work only two days in the week. Women are very successful in boring. The work, which requires assiduity, precision, and a light, skillful hand, seems to be made expressly for them. The few women who have devoted themselves to wood engraving easily earn five francs a day. In 1860, a course of instruction in this art was opened at the School of Design, and the experiment wrought excellent results.

The want of a good education or apprenticeship reduces a great number of women and young girls to trades which scarcely suffice to support them, such as basket-making, esparto work, straw-mat, broom, and feather-duster making, and stuffing chairs. The poor women who make wreaths of immortelles and shavings of ox-horns earn barely enough to buy bread with. In general, talent only is well paid. Persons who are endowed neither with talent nor physical strength, can find profitable employment nowhere but in factories.

Women find employment also in stationers' and booksellers' shops as folders, gatherers, and stitchers. Their wages vary as they do everywhere from one franc, (20 cents) to two francs fifty centimes (45 cents) a day, but rarely fall below two francs, (40 cents.) They are beginning in printing establishments to employ women to set type. They compose very well, nothing but exactness and perseverance being generally necessary. It is always hard labor, as it obliges them to stand up all the time, and is very fatiguing to the eyes. It often requires, also, a good elementary education, which is not within the reach of all young girls.

The last-named trades are carried on in enormous workshops. This is the case, too, with glass-cutting. Every one is aware of the difference between cut and pressed glass. In order to give the glass those clean edges which so enhance its value it is necessary to subject it to the action of several grindstones; for glass is a dry, brittle substance, which cannot be cut like wood, stone, or metals.

## FACTORY-LIFE.

The women employed in the factories where woolen fabrics are made, have also a hard lot. There are always cleaners, packers, and *rattacheuses*, as wool necessitates divers operations of division, greasing, and again removing the grease. Nevertheless it produces less dust than cotton, and has not the same disadvantage of poisoning the air and adhering to the hair and clothes of the operatives. The odor of the oil which is applied to the wool for the purpose lubricating it, and facilitating the operations of carding and combing, is only disagreeable to visitors; the women employed do not notice it. In general wool-spinning is less troublesome and dangerous than cotton-spinning. Several wool-spinning factories are remarkable for their neatness and ele-

gance. Preparations of hemp, flax, and above all of tow, emit, on the contrary, quantities of very unwholesome dust. It is impossible to card and spin them, except in very hot rooms, and with the aid of abundance of water. Few sights are more unpleasant than a badly kept flax-spinning establishment. The water floods the brick floors, and the smell of the flax in the heated atmosphere produces sometimes an intolerable stench. The greater part of the workwomen are obliged to lay aside most of their clothes, are crowded together in this pestilent atmosphere, and stand all day long perspiring, and with naked feet, the water often reaching their ankles. When, after twelve hours' hard work, they leave the factory for their homes, the wraps with which they cover themselves barely afford an adequate protection against the cold and damp.

#### THE WAGES.

The health of a woman has a great deal to do with the question of her receipts; the will, perhaps, still more, since energy and resolution can triumph over a weak body and exhausted powers. The most favorable estimates do not fix the mean of the female weaver's daily receipts at more than one franc fifty centimes.

Let us, in order to make the best of it, state the average of her salary to be 1.75 francs, (35 cents,) which would be 525 francs a year for 300 days of hard work. With 1.75 francs a day it is possible indeed to live, but to live very poorly. If 72 francs (20 centimes a day) are not deducted from the year's income for a lodging, the lodging must be a mere shed. If more than 150 francs are not deducted for washing, shoes, and clothes, the Lyons workwomen will scarcely be able to get more than what is absolutely necessary. There remain then something like 80 centimes a day for food and other expenses. Most of these women take their meals at the master weaver's. This arrangement, though not always practicable, is much the best. Although women are naturally sober, and generally less in need of strong food than men, we should remember that these women work at a fatiguing trade, which requires a certain degree of strength, if only to accomplish a good day's work. To be miserably lodged, clothed, and fed, and with all this to be obliged to work, at the very least, twelve hours a day, is the fate of a female weaver, as favorably situated as possible.

#### WEAVERS AND LACE-MAKERS.

We should form a very mistaken idea of the trade of spinning and weaving did we suppose that it had completely done away with manual labor. The old-fashioned loom is still encountered everywhere, in cellars and cottages. After visiting one of those vast factories where five hundred looms are working together with a deafening clatter, it produces a singular effect to cross the street, descend a few steps, and suddenly find oneself in the workshop of a weaver of the old school. The cellar is lighted, as all cellars are, by a trap-door. The atmosphere is damp enough to prevent the thread from breaking, but not so damp as to injure it. Sometimes, often indeed, the loom completely fills the cellar, and the weaver is obliged to creep under the frame, and squeeze himself between the levers, in order to tie the broken threads. The large, heavy, rough-hewn posts, the warp moving with a creaking noise, the cords grating in the pulleys—the primitive simplicity of all these accessories contrasts strangely with the elegant little machine which is driven by steam with such rapidity. The old-fashioned weavers usually work alone. Sometimes they have two looms in one room, rarely more. When they spend their days thus, seated on their stools, their feet on the levers, and their hands on the battants, they might easily imagine that there have been no revolutions either in society or in trade, and that the steam-engine is still an invention of the future.

Cotton is woven by machinery in Alsace, Normandy, and the north of France. Hand-loom is there the exception, and their number is daily diminishing. Some old houses have retained them because they involve no expense, and patterns can be varied on them with more facility than on power-loom. Here and there, to be sure, may be seen a hand-loom; but it is a family heritage, and the children continue their father's trade with their father's implements. The knitting-loom, such a source of revenue to country-women, does not suffice for the support of a Parisian workwoman.

This is the case also with regard to another branch of industry, lace-making, the products of which are priceless, and the labor miserably paid. At Paris, where living is expensive, lace has rarely or never been made, for the gold and silver lace manufactured in Paris ranks properly among *passementerie*. For the same reason, very little of the so-called Valenciennes lace is made at Valenciennes. It is difficult work, requires a long apprenticeship, absorbs all of the maker's time, and is so miserably paid for that the working population of the north find more lucrative employment. As it takes several months, and sometimes even a year, to make a coupon three yards in length, and as it is impossible for the lace-maker to wait so long a time for her wages, it is the custom to pay by *bandes*, there being three *bandes* in a yard, and twelve in a coupon. The result of this is that the employer incurs both risk and expense, as he is obliged to furnish the thread and pay almost the whole amount due the maker a long time before he receives the work. At the present time there are but three lace-makers at Valenciennes, earning from one franc thirty centimes to one franc fifty centimes for twelve hours' work. What is known as Valenciennes lace is made extensively at

Yprés, Courtray, Ghent, Bruges, and in almost all parts of Flanders. The price of a lace-maker's cushion varies from eight to ten francs, the patterns from seventy-five centimes to one franc. Beside this the woman is obliged to provide her pins and spindles, and rarely are less than four hundred spindles and fifteen hundred pins used in making a coupon of Valenciennes lace.

Point d'Alençon is made in a very different manner from Valenciennes. In the latter instance the same person makes the net and the flowers; but the women who make Point d'Alençon are divided into several classes—the *traceuses*, the *réseleuses*, who make the lace or net, the *bourreuses*, who do the heavy embroidery, the *modeuses*, who do the open work, and the *brodeuses*, who make the border destined to surround and support the pattern. An apprenticeship of three months is sufficient, and if they do not injure their hands by doing heavy work, they can attend to all their household duties. They can begin a piece of lace, leave it and take it up again, as they could knitting or embroidery. They earn on an average one franc a day.

#### NEEDLE-WOMEN.

It appears that twenty years ago, out of 112,000 workwomen mentioned by the commissioners of examination, at least 60,000 supported themselves by various kinds of needle-work. This estimate includes only those regularly hired. There are a large number of others who work alone.

The highest wages paid before the war were five francs daily for milliners and embroiderers, four francs fifty centimes for the seamstresses employed by tailors, four francs for regular seamstresses, corset-makers, and the women who work for the *lingeries*. The *reprisures* and the seamstresses who work for shoemakers and upholsterers earn three francs fifty centimes. On the other hand, wages sometimes fell as low as seventy-five centimes for workers on tapestry, kid gloves, and old clothes; fifty centimes for dress-makers, vest-makers, corset-makers, cap-makers, and embroiderers; forty centimes for the women employed by shoemakers and those who stitched cloth gloves, and fifteen centimes for those employed in the *lingeries*.

The general average of salaries earned by Parisian workwomen in 1847 was about one franc sixty-three centimes. Nine hundred and fifty women earned less than sixty centimes; one hundred thousand and fifty from sixty centimes to three francs; and six hundred and twenty-six more than three francs. Seamstresses who worked at home earned on an average one franc forty-two centimes, and those in the shops about two centimes. These rates have doubled since that time.

A good Parisian work-woman is, in a certain sense, an artist. It is natural that she should be much sought after and well paid. As wages have gradually risen, only women endowed with an exceptional degree of talent have profited by the change, while the increasing competition, the new commercial organization, and the dissemination of the sewing-machine have combined to lower the value of mere manual labor. Tailors who make to order pay a woman from four to six francs for making a vest. She is obliged to furnish her own sewing-silk, &c., the expense amounting to about fifty centimes, and, if a good worker, she can make a vest a day. The merchants, however, who furnish ready-made clothing to the Parisian shops pay a woman only one franc fifty centimes to two francs fifty centimes for the same labor. There, then, may be two women, both following the same trade, one of whom will earn five francs fifty centimes a day, and the other only one franc twenty-five centimes. The exporting merchants pay their women from seventy-five centimes to one franc twenty-five centimes; the thread and other materials which must be supplied will cost, say, twenty centimes. If they can make three plain vests in two days, they will have a profit of about eighty-five centimes a day.

Ladies' cloaks and mantillas are always given by large houses to women who superintend the work done by their hired hands, and who themselves do everything requiring taste and discrimination. The workwomen do nothing but sew. They earn two francs or two francs fifty centimes for twelve hours' work, out of which one hour is allotted for rest and meals.

Wholesale ready-made clothing establishments manage things very differently. The house will order, for example, three dozen paletots at one shop. These paletots cost two francs apiece, of which the mistress of the shop deducts fifty centimes. The woman who sews spends fifteen centimes on her thread, and her profits amount to only one franc thirty-five centimes. By working from 7 in the morning till 8 in the evening, and scarcely taking time for her meals, a skillful workwoman can make three paletots in two days. To accomplish this she must sew steadily for thirteen hours without one instant's pause or rest. To this gloomy picture we must add cold feet in winter, and six hours' work by dim candle-light. It is under such circumstances that a seamstress who is more than ordinarily clever can earn two francs.

Linen drapery, or *lingerie*, comprises a great variety of articles, from sheets and the aprons worn by *valets de chambre* to ladies' morning-caps finished in the most dainty style. A clever workwoman, who is able to cut and finish a fine cap, can earn from five to six francs a day. Generally, these are women who have small shops, and make this their peculiar branch of trade.



Among the regular workwomen, a few of the best earn three francs, and almost all earn two francs, or two francs fifty centimes, for thirteen hours' work. The easiest work falls below this estimate; for example, eighty centimes are paid for one dozen *schs* bodies, and a very good seamstress can make two dozen in thirteen hours. Sheets, towels, and napkins rarely bring the needlewoman more than one franc a day, or seventy-five centimes when she works for large establishments. They are the resource of most women when work is slack.

Upholsterers employ a great many seamstresses. The commissioners counted two thousand, and, with the increase of population and the rapid increase of luxurious habits, undoubtedly a much larger number are now engaged in this trade. They invariably receive one franc seventy-five centimes a day, unless they are *doublouses*, in which case they receive two francs, as they are obliged to stand up all the time. Their day's work lasts in winter from 8 in the morning till half past 6 in the evening, with an hour's intermission; and in summer from 7 in the morning till half-past 6 in the evening. Extra work is paid at the rate of twenty-five centimes until midnight, and fifty centimes from midnight until 6 in the morning.

#### GLOVE-MAKERS.

Not less than 12,000 women are employed in the glove-trade in the department of the Loire alone. In the Grenoble factory there are 1,200 who cut the gloves, making on an average four hundred and fifty dozen a year. A single house at Chaumont (Haute Marne) employs 2,051 stitchers.

There are three separate kinds of work in glove-making—cutting, stitching, and finishing. Men usually do the cutting; but lately they have employed at the Grenoble manufactories four or five hundred women, who place the leather upon the iron hand, cut it with the aid of a *balancier*, and prepare it for sewing. It is not very hard work, and the women receive twenty centimes a day. They can earn from forty-five to seventy francs a month. This depends, of course, upon their skill, and the time they have to give to the work. The stitchers are paid for one dozen single-buttoned ladies' gloves four francs fifty centimes, and for two-buttoned gloves four francs seventy-five centimes. The mistress deducts fifty centimes, and the workwoman is obliged to furnish the silk, at a cost of about forty centimes; three francs thirty centimes remain for one dozen pairs, or thirty centimes a pair. A good worker can make at most four pairs a day, but the majority of women do not make more than two and a half.

Glove-stitching requires the most exquisite neatness. The stained gloves are not only left on the workwoman's hands, but she is obliged to pay for the material. Four pairs a day would amount to one franc twenty centimes. In the Haute Vienne, where gloves are made of lambskin, in l'Aveyron, in the Haute Marne, and even in l'Aisne, the price of a dozen often falls as low as three francs. The workwoman's receipts are then reduced almost to nothing.

The following extract from the Paris correspondence of the Chicago Tribune, supposed to be from the pen of the editor, Mr. Medill, affords additional information of an interesting character in regard to the employment of women in France:—

Women seem almost to monopolize every avocation in the cities for which they possess the requisite physical strength. They constitute the great bulk of the visible shop-keeping class. Male clerks are scarce in France; the women having taken their places. The hotels and boarding-houses are managed by females. All the lighter mechanical trades are largely filled with women, who manufacture most of the clothing, head-gear, slippers, dolls, toys, and a thousand articles of commerce, with which the French supply the markets of the world. In the country, all French women work out of doors, on the farms, side by side with their male relatives. It would be a safe estimate to state that half the productive industry of France is the result of female labor.

But that in which the French more particularly excel is economy. They live upon just about one-half what the Americans do. The wife in every French family knows to a nicety what quantity of each kind of food is the least that will suffice to make a comfortable meal, and not a particle more than that is ever cooked or served. Servants are never permitted to waste or steal food. The lady of the house looks after her marketing, her kitchen, and her pantry, with sharp eyes and unflagging care.

In the matter of clothing, also, the same economy prevails, and yet they all seem to be neatly, cleanly, and comfortably dressed. There is no vast element of indigent, ragged, miserable paupers, living on public charity. Every one appears to be self-supporting.

## CONDITION OF LABORERS' DWELLINGS.

M. Jules Simon, from whose interesting account of labor in France copious extracts have been presented on the preceding pages, has also investigated the condition of the working-classes. In regard to their wretched abodes, the collection of rents, and the hours of labor, he says:

It is not an uncommon thing to find workmen who have inhabited the same room for a number of years, not because they are comfortable, but simply because they are there, and have no idea of looking elsewhere for a home. The most striking examples of this indifference is in the case of two old people who lived some years ago in a small house in the Rue du Miline, in the parish of St. Germain. When interviewed the husband was eighty-three and the wife eighty-two years old. They had been married sixty-three years, and had lived in this lodging fifty-seven years, almost suffocated with smoke when they made a fire, chilled by the wind which whistled through the badly-joined panels of the door, and overflowed by the water of the drain. This Quartier de la Veilliere is a gloomy abode. It seems to be asleep, and is a sickening sight, for it is old without being venerable. Among other proofs of abject misery there is a ground-floor lodging there, comprising two small rooms, badly paved with small stones, and the inner room, having no windows, is in constant darkness. It also joins a bone depository, belonging to the neighboring house, and which diffuses so horrible an odor that it is impossible to bear it for more than a few moments. The man who, with his wife, inhabits this wretched dwelling, is employed in a neighboring factory; they have a daughter twenty years old, and five other children of tender years. Amiens is, notwithstanding all this, a fair, smiling city, with superb boulevards, long and well-built streets, a magnificent promenade, and one of the finest cathedrals in the world. It only remains for the inhabitants to believe that misery does not exist at all, that the workmen have food and fuel, and that no old man is in want of a bed on which to repose his wearied limbs. The contrast is, perhaps, more striking at Rheims, because trade is more animated there. That marvelous cathedral, those galleries in the open air which call to mind the covered bridges at Lucerne, the Rheims Mountain, which lifts its smiling vine-wreathed summits against the horizon, the well-aired, well-furnished shops from which issue constantly mountains of spun wool, heaps of flannel, avalanches of cotton and woolen cloths, scarcely permit us to suspect the existence of the misery which is concealed not two steps off.

## THE HOMES OF FAMINE AND RUIN.

Yet there stands a row of houses built at the foot of the ancient ramparts, the floors of which are washed away by floods of rain in the winter; there are lodgings, too, in the Cour Jenetus, the Cour St. Joseph, the Place St. Maise, the Cemetery of la Madeleine, and the Rue du Barbatre, more desolate and abandoned than dungeons; long lines of rooms where the water drips through the dilapidated roofs, where space, air, and light are wanting, yet where people live, buried in cellars, perched in garrets, crowded, pressed, crammed one against the other in damp and choking alleys, the fearful abodes of famine, sickness, and debauchery. There still remains in the Cour No. 136, on the Boulevard Coris, a closet under a staircase, some two yards long by one and a half wide; it is impossible to stand upright in it, even at the highest part of the staircase. There is no window, and in order to have a little light and air it is necessary to leave the door open. It is no longer anything but a bake-house, but a paralytic woman once lived there, if it could be called living, two years and a half. With the single exception of Mulhouse, equally wretched abodes may be found in every manufacturing town throughout France.

## COLLECTING RENTS.

Some landlords collect their rents themselves, and have no other business. One round is scarcely completed before they have to begin another, for every one, of course, will readily perceive that all rents are not paid at the first demand, and that it is necessary to return on Monday, Tuesday, and sometimes on Wednesday. A landlord who is resolved to be paid at any hazard allows of no arrears. It is possible with great difficulty to get 1 franc or 1 franc 60 centimes at a time, but 4 or 5 francs are an impossibility. The woman who cannot pay her rent on Monday is obliged to take her children and seek admittance at some other door. When there are no vacant lodgings to be had the tenants refuse to move, and it is hard enough to get them to go away. The most severe method consists in removing the door and windows. A few years ago there was a landlord at Lille who left his house in the morning drawing a little

hand-car. When a tenant refused to pay he took away his door and windows with his own hands. This worthy individual always returned home at night with large receipts, and yet he did not die a millionaire.

#### HOURS OF LABOR.

In 1836 the workman's day was fifteen hours long at Mulhouse, Dornach, and Lille, and sixteen at Bischerville. A report made before the Industrial Society at Mulhouse in 1837 stated that it was eighteen hours long in many French manufactories. Adults are now limited by law to twelve hours' labor per day. Adding to this the hour and a half usually allowed for rest and meals, it makes the absence of a mother from her family thirteen and a half hours. This is in case, we suppose, her house is near the factory, which it rarely is. Generally, it takes an hour to go and return, which makes altogether an absence of fourteen or fifteen hours for the mother, and of solitude for the children. It is clear that, under such conditions, the room must be neglected; it is neither washed nor swept, nor put in order. Yet no one can have the heart to reproach for this the unhappy creature who, when she returns from the shop, has barely strength enough to prepare supper and put her children to bed.

It is, then, impossible for a woman employed in a factory to perform her duty to her children. During her absence the visitor will not unfrequently find the children gathered around the fireless stove, sad and motionless. Their weakness rather than their mother's injunctions keeps them at home. The first idea which occurs to us on seeing them is that they have never smiled. There is another difficulty about schooling. It is necessary to be rich in order to go to the free school. A child of six years can wind; at eight he can enter a manufactory. Supposing that there are two or three children between the ages of six and twelve years, how is it possible to support them on the wages of one man? They must do their week's work as well as their father and mother. With what impatience do the peasants await the age fixed for entering the factory! Is it because they undervalue education? No, it is because they dread starvation.

#### LABOR IN FRENCH PRISONS.

According to M. Simon, there are three classes of prisons in France, the central prisons, the department prisons, and the houses of correction. In the first are confined all women condemned to hard labor, as are also some men condemned to a like punishment; all persons condemned to solitary confinement, and all persons condemned to more than one year of imprisonment. The prisoners usually remain about three years. There are twenty-five of this kind of prisons, and they are the only ones where the work is properly regulated, or is of any importance. There are not less than fifty-four trades carried on in these central prisons. A contractor-general buys the hands of the prisoners, and lets them to subcontractors. The tariff of wages fixed by the government, and accepted by the contractor, is precisely the same as that of free workmen. The contractors supply food and clothing for the prisoners, and a debit and credit account is kept between the State and the contractor-general, an account which, on the side of the State, always ends in debit. The prisoner is lodged, clothed, fed, warmed, and has his washing done, gratuitously. He has no family—at least he may be considered as having none, since he cannot support it. He is never in want of work. If he is ill he is not obliged to pay for medical attendance. Finally, it is out of his power to spend either time or money in the pursuit of pleasure. If, therefore, he be as well paid as a free laborer he ought to save a great deal of money. He really does, since he receives a certain number of tenths, not of the real price of the day's work paid by the subcontractor, but of the price named in the tariff, and accepted by the contractor-general as his base of operation and as equivalent to the day's wages of a free laborer. This sum is always reduced by one-fifth, which is deducted by the contractor-general in payment of the materials and tools with which he furnishes the prisoner.

## PRODUCTION OF IRON AND STEEL IN 1873.

The following statement of the production of iron, and of iron and steel rails in France, during the year 1873, will be read with interest :

The total make of pig-iron in France in 1873 was 1,381,000 tons, being only 17,000 tons less than that of 1869; the largest that was ever reached having been 1,398,000. Compared with 1872, the increase has not been less than 200,695 tons. The total out-put of manufactured iron in 1873 amounted to 906,745 tons against 883,079 tons in 1872, showing an increase of 23,666 tons. There is a falling off, however, of 126,000 tons compared with the extraordinary make of 1869. The total production of steel during the year reached 167,677 tons against 138,552 tons in 1872, or an increase of 29,125 tons. Since 1867 the steel manufacture in France has increased tenfold, and the upward movement is likely to continue. The sum total of iron and steel rails which the sundry railway companies ordered from the home works during 1873 is 182,815 tons, of which 124,717 tons were of iron and 64,098 tons of steel. The Paris-Lyon-Mediterranean Railway alone consumed during the year 32,500 tons of steel rails; the Nord, 14,625 tons; the West, 9,871 tons. Compared with 1872, the consumption of iron rails increased 20,750 tons, and that of steel rails 11,903 tons. Adding to the above figures 8,544 tons of iron rails and 2,000 tons of steel rails imported during the year, it is found that there has been a consumption, by all the French railways, of 133,261 tons iron rails and 66,098 tons of steel rails, or an aggregate of 199,359 tons.

## STEEL-WORKS AT LE CREUSOT.

Having, at a later period, visited the renowned steel-works of Mr. Krupp, at Essen, in Westphalia, an extended notice of which appears on subsequent pages, the author more keenly regrets that he did not extend his journey from Paris to Le Creusot, where the celebrated works of Mr. Schneider are situated. The following communication, which appeared in the American Manufacturer, of Pittsburgh, Pa., gives an interesting account of the extent and production of the works, but makes no reference to the earnings of the workmen :

I have just returned from a visit to Le Creusot, the largest works I have ever visited. I spent four days there, and am under many obligations to Mr. Schneider, the owner of three-fourths of these magnificent works, for the very kindest of attention shown me during my visit. I had the pleasure of inspecting the works under the personal guidance of Mr. Schneider, who has a warm feeling for Americans, as several American iron-men can testify.

There are employed at these works 15,000 workmen, who turn out a daily product of 500 tons of iron and steel.

The building of the rolling-mills is 1,318 feet long and 360 feet wide, under a succession of spans, four in number, all of iron. They have twelve sheet and plate mills here, and are putting in the three high Lanth. They have ten blast-furnaces, which produce 500 tons of pig-iron per day. Have four converters, (Bessemer,) and make 200 tons per day. They have also the Siemens-Martin process at work. Mr. Schneider informed me that they do not have any difficulty in making a uniform article of steel. I can say I want steel soft to-morrow, hard the next day, medium the next, and am sure to get it, as he says there is no trouble with steel, but with iron there is. They use the African ore mostly. Mr. Schneider assisted a company with their mines, and in return they agreed to deliver him 130,000 tons of ore per year. This agreement is to last for the next fifteen years. He gets it very cheap.

They make all kinds of machinery, from a marine-engine down. Are building the engines for the steamer Lafayette, to run between Havre and New York. They build one hundred locomotives per annum. All the principal parts are made of steel, and have a splendid finish. Thirty large steam-hammers are constantly at work on their forgings. I saw a drill-press bore thirty-five holes at the same time. They have a steam-riveter to make boilers. The boiler is suspended over the machine, and in two blows the rivet is in its place finished. The company have iron-mines of their own, and four collieries with veins in a kind of pockets, 30 feet thick, and nearly vertical. They took out 700,000 tons last year, and expect to run over a million tons this year. They have eighteen locomotives and eight hundred cars for their own use, besides what they use of the railroad company. Their pumping-engine is of the Wolf system, compound; capacity, 135,000 cubic feet per stroke. Mr. Schneider is erecting an iron building 1,500 feet long and 160 feet wide, in which to manufacture steel and axles for railways, and expects to make eighty thousand wheels and forty thousand axles for the American and Russian markets.

This company bring their water four miles now, and must go twenty for more, as they have not enough. The population of Le Creusot is about 25,000. Mr. Schneider has four schools, that he pays for himself, for the education of his workmen's children.

## INDUSTRIAL PRODUCTION IN FRANCE.

On a previous page the value of the industrial products of Paris in 1860 was stated at 3,369,092,949 francs; the following table shows the value of products of industry in each of the eighty-nine departments of France, in a subsequent year, the aggregate amount of which reaches the sum of 9,755,030,000 francs.

*Table showing the total value of industrial production in the several departments of France in the year 1871.*

Departments.	Value of product.	Departments.	Value of product.
	<i>Francs.</i>		<i>Francs.</i>
Seine .....	1,989,698,733	Sarthe .....	48,902,710
Nord .....	799,834,160	Nièvre .....	48,807,410
Rhône .....	600,556,819	Manche .....	48,306,390
Seine-Inférieure .....	440,333,034	Meuse .....	46,219,433
Bouches-du-Rhône .....	271,854,370	Deux-Sèvres .....	45,793,220
Loire .....	224,338,675	Haute-Vienne .....	44,355,855
Eure .....	213,136,049	Var .....	44,260,665
Haut-Rhin .....	196,258,280	Aveyron .....	43,428,723
Aisne .....	184,935,418	Charente .....	43,337,065
Somme .....	176,525,707	Eure-et-Loir .....	42,385,500
Marne .....	161,907,783	Indre-et-Loire .....	41,746,860
Loire-Inférieure .....	161,040,884	Haute-Saône .....	40,606,370
Ardennes .....	160,144,314	Vendée .....	39,611,836
Pas-de-Calais .....	158,081,790	Cher .....	39,609,860
Bas-Rhin .....	148,484,655	Jura .....	39,480,900
Ardèche .....	144,259,135	Charente-Inférieure .....	35,563,842
Ille-et-Vilaine .....	143,813,200	Morbihan .....	35,512,975
Oise .....	131,329,920	Aude .....	34,931,063
Moselle .....	124,000,290	Allier .....	32,667,841
Gironde .....	122,432,060	Haute-Marne .....	32,364,382
Isère .....	116,235,728	Yonne .....	31,701,963
Gard .....	115,608,116	Gers .....	30,896,530
Seine-et-Oise .....	109,640,500	Vienne .....	28,603,925
Vosges .....	104,172,915	Mayenne .....	26,720,520
Vaucluse .....	101,780,500	Loir-et-Cher .....	26,516,225
Haute-Garonne .....	99,241,062	Landes .....	26,115,075
Calvados .....	97,361,820	Haute-Loire .....	25,726,270
Hérault .....	94,458,470	Tarn-et-Garonne .....	25,544,940
Seine-et-Marne .....	88,782,550	Côtes-du-Nord .....	24,832,331
Orne .....	82,061,623	Ariège .....	22,906,650
Saône-et-Loire .....	78,104,635	Lot .....	20,228,960
Finistère .....	76,326,020	Basses-Pyrénées .....	19,583,936
Cote d'Or .....	75,019,620	Hautes-Pyrénées .....	19,174,619
Maine-et-Loire .....	71,300,800	Pyrénées-Orientales .....	15,984,975
Aube .....	68,920,950	Alpes-Maritimes .....	15,675,110
Doubs .....	65,618,510	Corse .....	14,147,300
Drôme .....	65,438,010	Basses-Alpes .....	14,019,480
Tarn .....	60,164,337	Creuse .....	13,742,300
Lot-et-Garonne .....	57,170,944	Hautes-Alpes .....	11,828,963
Ain .....	52,677,470	Savoie .....	9,351,220
Puy-de-Dôme .....	52,424,952	Haute-Savoie .....	6,963,700
Indre .....	50,038,208	Lozère .....	6,087,675
Meurthe .....	49,833,456	Corrèze .....	5,713,940
Loiret .....	49,197,500	Cantal .....	3,567,453
Dordogne .....	48,958,818		

Total value of product in francs, 9,755,030,000.

Total value in dollars, 1,900,461,809.\*

Total value of products of industry in the United States of America in 1860, \$1,885,861,676, gold; in 1870 \$4,232,325,442, currency.

\* Computing the franc, in this instance only, at 19.3 cents, gold.

## MANUFACTORIES IN THE BOUCHES-DU-RHÔNE.

In the department of the Bouches-du-Rhône there were in 1872, as stated by Mr. Consul Osterhaus, the following manufacturing establishments :

Manufactories of soap, 37; oil, 54; tobacco, 1; matches, 12; awnings, 3; billiards, 4; corks, 12; candles, 5; bricks, 2; caramel, 2; cards, 3; book-binding, 10; hats, 15; shoes, 17; shirts, 10; wax, 5; safes, 4; cream of tartar, 1; vegetable hair, 6; ink, 4; manure, 6; tin in sheets, 2; crockery, 3; paper, 9; metal founderies, 13; Italian pâtes, 4; pianos, 3; pipes, 3; shot, 5; pens, 1; saddles and carriages, 2; semoule, 1; sirups, 3; silks, 6; sulphur, 4; water-proof cloth, 2; sugar, 2; bags and bagging, 4; linen, 7; tubes and pipes, 3; coral, 1; vermuth, 5; glass-ware, 3; vinegar, 1; wooden shoes, 1; vermicelli, 3; ceruse, 1; molds, 7; cotton, 1; lime, 5; machines, 1; capers, 1; brooms, 2; Indian goods, 3; almond candy, 1; pottery, 4; liquors, 1; chemicals, 5; resin, 1; brandy, 1; cords, 1; woolen-factory, 1; and sausages, 3.

## PROPORTION OF THE INDUSTRIAL TO OTHER CLASSES.

The following table gives the absolute and relative number of persons who, in 1866, were supported directly or indirectly by the occupations and professions mentioned :

Employments.	Males.	Females.	Total.	Proportion to 10,000 inhabitants.
Agriculture.....	9,737,295	9,860,820	19,598,115	5,194
Industry.....	5,574,818	5,384,273	10,959,091	2,879
Commerce.....	737,675	779,483	1,517,158	399
Professions connected with agriculture, industry, and commerce....	607,491	488,296	1,095,787	287
Various professions.....	89,885	108,754	198,639	52
Liberal professions, and persons living on their own means.....	1,782,089	1,825,206	3,607,295	948
Various occupations.....	288,077	276,264	564,341	147
Professions unknown.....	196,749	329,889	526,638	139
Total equaling the population....	19,014,079	19,052,985	38,067,064	10,000

It will be noticed from the above table that there were supported by various industrial occupations, exclusive of agriculture, 10,959,091 persons, or nearly 27 per cent. of the whole population.

## PRICES OF FARM AND MECHANICAL LABOR IN 1873.

The following rates of wages paid for farm-laborers and for skilled workmen in the places mentioned were furnished by the consuls of the United States:

*Table showing the rates of wages paid for farm and mechanical labor in the Department of Loire Inférieure, and in Nice, Lyons, and Marseilles, in 1873.*

Occupation.	Department of Loire Inférieure.	Nice.		Lyons.	Marseilles.
	Daily wages, without board.	Daily wages, without board.*	Monthly wages, with board.	Daily wages, without board.	Daily wages.
<b>FARM-LABORERS.</b>					
Experienced hands in summer .....	\$0 40	\$0 57	\$11 40	\$0 60	\$0 25
Experienced hands in winter .....	30	57	11 40	.....	.....
Ordinary hands in summer .....	25	42	6 90	.....	20
Ordinary hands in winter .....	20	42	6 90	.....	.....
Common laborers at other than farm-work .....	20	42	6 90	.....	10
Female servants .....	30	38	5 70	\$4 to \$5 per mo.	.....
<b>SKILLED WORKMEN.</b>					
Blacksmiths .....	\$0 40 to 80	76	.....	1 00	80
Brick-layers or masons ..	50 to 80	\$0 76 to 95	.....	\$0 80 to 1 00	1 00
Cabinet-makers .....	40 to 1 00	.....	.....	.....	80
Carpenters .....	60 to 1 00	76	.....	80 to 1 00	1 20
Coopers .....	40 to 80	76	.....	80 to 1 00	80
Miners .....	.....	1 52	.....	1 00 to 1 25	80
Machinists .....	60 to 1 00	2 28 to 3 04	.....	1 00 to 1 25	80
Painters .....	70 to 1 00	57	.....	80 to 1 00	80
Plasterers .....	60 to 1 00	95	.....	80 to 1 00	80
Shoemakers .....	60 to 80	66	.....	80 to 1 00	\$0 160 to 1 20
Stone-cutters .....	60 to 1 00	66	.....	1 00 to 1 25	180 to 1 60
Tailors .....	60 to 1 00	57 to 95	.....	50 to 80	1 20
Tanners .....	40 to 80	95	.....	80 to 1 00	170 to 1 60
Tinsmiths .....	30 to 60	76	.....	80 to 1 00	180 to 1 10
Wheelwrights .....	40 to 80	85	.....	80 to 1 00	80

\* Price of board for workmen during month of October, 1873, \$1.75 per week; for workwomen, \$1 55.

† On piece-work.

## PRICES OF PROVISIONS, GROCERIES, HOUSE-RENT, ETC.

*Prices of provisions, groceries, and other leading articles of consumption, also of board and house-rent, in the manufacturing towns of Lyons, Nice, Marseilles, and Nantes, France.*

Articles.	Retail prices in 1874.			
	Lyons.	Nice.	Marseilles.	Nantes.
<b>PROVISIONS.</b>				
Flour, wheat, superfine.....per barrel.	\$0 00		4 c. per lb.	5 c. per lb.
extra family.....do.	9 80		4½ c. per lb.	
rye.....do.	02		4 c. per lb.	
Corn meal.....per pound.	04		3½ c. per lb.	
Beef, fresh, roasting-pieces.....do.	18	\$0 19	\$0 18	
soup-pieces.....do.	18	09	16	
rump-steaks.....do.	18		21	
corned.....do.	18	19		
Veal, fore-quarters.....do.	18	19		
hind-quarters.....do.	18	24		
Veal-outlets.....do.	18	24	23	
Mutton, fore-quarters.....do.	18	19		
leg.....do.	18	24		
chops.....do.	18	24	23	
Pork, fresh.....do.	20	19	19	
corned or salted.....do.		24		
bacon.....do.		30	20	
hams, smoked.....do.	18	30		
shoulders.....do.	18	30		
sausage.....do.	10	24	23	
Lard.....do.	10	19	25	\$0 15
Cod-fish, dry.....do.	10	15	09	12
Mackerel, pickled.....do.	20		25	
Butter.....do.	30	\$0 35 to 40	28	25
Cheese.....do.	25	30	23	22
Potatoes.....per bushel.	27	1½ ct. per lb.	1 ct. per lb.	33
Rice.....per pound.	07	\$0 06 to 08	05	
Beans.....per quart.	08	05	\$0 04 to 05	
Milk.....do.	09	06	07	09
Eggs.....per dozen.	24	18	23	
<b>GROCERIES, ETC.</b>				
Tea, Oolong, or other good black.....per pound.	80	95 to 1 20	1 00	1 60
Coffee, Rio, green.....do.	24	43	38	40
roasted.....do.	28	50	50	
Sugar, good brown.....do.	20	14	14	
yellow C.....do.	16	16	15	
coffee B.....do.	18	18	16	
Molasses.....per gallon.	09		06	
Sirup.....do.	07		06	
Soap, common.....per pound.	04	11	08	
Starch.....do.	10	09	09	
Fuel, coal.....per ton.	\$4 60 to 6 00	\$3 50 to 10 00	6 20	8 00
wood, hard.....per cord.		5 00		
pine.....do.		4 50		
Oil, coal.....per gallon.		95	1 12	1 00
<b>DOMESTIC DRY-GOODS, ETC.</b>				
Shirtings, brown, 4-4, standard quality.....per yard.	10	24	15	
bleached, 4-4, standard quality.....do.	15	28 to 47	16	
Sheetings, brown, 9-8, standard quality.....do.	23	28	25	
bleached, 9-8, standard quality.....do.	28	38	30	
Cotton flannel, medium quality.....do.	31	42	35	
Tickings, good quality.....do.	25	28	25 to 40	
Mousseline de laines.....do.		28 to 47	25	
Satinets, medium quality.....do.	50	45 to 1 20		
Roots, men's, heavy.....per pair.	4 00	1 92 to 2 30	4 40	
<b>HOUSE RENT.</b>				
Four-roomed tenements.....per month.		2 28 to 3 20	5 00	\$25 to \$40*
Six-roomed tenements.....do.		3 10 to 4 10	7 00	
<b>BOARD.</b>				
For men, (mechanics or other workmen).....per week.		1 75 to 2 20	2 80	
For women employed in factories.....do.		1 55 to 2 00		

\* Per annum.



## EXPENDITURES OF WORKMEN'S FAMILIES.

The circular requesting statements of the weekly outlay by the families of laboring men for provisions and other necessary articles of subsistence, and for house-rent, clothing, &c., met with but few responses from France; there being but one from Nice and two from Marseilles.

## NICE.

*Average weekly expenditures of a family consisting of two adults and three children.*

Bread .....	\$2 50	Fruits, (green or dried) .....	\$0 15
Fresh meats .....	65	Fuel .....	25
Butter .....	15	Oil or other light .....	25
Cheese .....	15	Other articles .....	25
Sugar .....	18	Spirits, beer, and tobacco .....	1 00
Milk .....	18	House-rent .....	35
Coffee .....	19		
Fish .....	10		7 23
Soap, starch, salt, &c .....	35	Clothing per year .....	50 46
Eggs .....	18	Taxes per year .....	1 90
Potatoes and other vegetables .....	35		

## MARSEILLES.

Mr. Consul Price, in transmitting a statement of the weekly earnings and expenditures of the families of two laboring men in Marseilles, makes the following explanation:

The following table represents, as exactly as possible, the average wages and expenses of a family of working people of two classes, between which there exists a hardly appreciable difference. It results from these figures that the laborer earning the least wages saves the most at the end of the year, because he is more sober. Spirituous liquors do not figure in the table of expenses because they are not consumed in the family, but only at the saloon or café. The item of light is insignificant, for the reason that the hearth-fire suffices to light the living-room, and the laborer goes to bed early and rarely lights a lamp. The item of combustibles can only be estimated; for, in general, the laborers collect and gather up in the factories the *débris* of wood, charcoal, and coke, which serves them for fuel.

*Average weekly earnings and expenditures of the families of two laboring men, each family consisting of two adults and two children.*

	No. 1.	No. 2.
Earnings:		
Man per week .....	\$3 30	\$4 80
His wife .....	90	90
Total weekly earnings .....	4 20	5 70
Expenditures:		
Bread, 23 pounds .....	\$1 00	\$1 00
Wine, 6 quarts .....	35	42
Fresh meats, 2½ pounds .....	30	80
Lard and oil .....	16	20
Cheese .....	20	12
Sugar .....	10	14
Milk .....	07	12
Coffee .....	05	10
Soap and starch .....	19	30
Salt and pepper .....	03	08
Potatoes and other vegetables .....	21	29
Light .....	04	09
Tobacco, spirits, &c .....	14	20
Rent .....	20	30
Educational and religious purposes .....	06	16
Total expenses per week .....	3 10	4 32

## Result :

52 weeks' expenses, at \$3.10 .....	\$161 20	at \$4.52	\$224 64
Clothing for one year .....	24 00		50 00
	185 20		274 64
52 weeks' earnings, at \$4.20 .....	218 40	at \$5.70	296 40
Balance, saved in one year .....	33 20		21 74

## EDUCATION AND CRIME IN MARSEILLES.

In reference to education and to penal offenses in Marseilles, Mr. Consul Osterhaus writes as follows :

*Education.*—There is, perhaps, no better way of giving a proximate idea of the educational advantages and condition of this people than by giving the statistics of population, number of schools of primary instruction, and the number of scholars. There are in this department three arrondissements, which, according to the census of 1872, contain a population as follows: Arrondissement of Marseilles, 352,280; of Aix, 114,038; of Arles, 88,407. This number is composed as follows:

Of boys and unmarried men .....	157,352
Of married men .....	106,612
Of girls .....	132,245
Of married women .....	107,618
Of widows .....	29,764
Total .....	554,725

Of this number 514,169 are French and 40,556 are foreigners.

From the report of the superintendent of primary instruction, it appears that there are in this department 742 primary schools, divided as follows: 171 public schools for boys, 131 public schools for girls, 128 free schools for boys, 287 free schools for girls, and 21 mixed schools of all kinds. The 171 public schools for boys receive together 23,340 children. One hundred and twenty-three schools, containing 11,473 scholars, are directed by lay-teachers; and 48 schools, with 11,867 scholars, are sectarian. The 131 public schools for girls receive together 14,976 scholars, of which 2,229 are taught by lay-teachers, and 12,547 are under the direction of sectarian teachers. The whole number of scholars who frequent the primary schools of the department is 59,478, and classified as follows:

	Scholars.
Public schools for boys .....	23,340
Public schools for girls .....	14,976
Free schools for boys .....	6,623
Free schools for girls .....	13,130
Mixed schools .....	1,409

The Protestant and Jewish sects have several schools in the department, and in sufficient number to respond to the needs of those different sects for religious teaching.

*Penal offenses*—During the year 1872 the courts of Aix have rendered 1,160 decisions; the court of assizes of the department has tried 136 prisoners, of whom 34 have been acquitted, 54 condemned to infamous penalties, and 48 sentenced to correctional punishment. The tribunal correctional of Marseilles has, in 1870, judged 2,692 prisoners, of whom 321 were acquitted; and the correctional tribunals of Aix and Tarascon have tried 729 prisoners.

## LABOR IN GERMANY.

If, instead of a report on the cost and condition of labor, this volume were a history of the various industries of Europe, it would be interesting to ascertain the origin and to trace the development of the principal manufactures of those states which now compose the German Empire.

The woolen goods of Rhenish Prussia and Saxony, the linens of Silesia and Westphalia, the cottons of Alsace and Berlin, the leather of the Rhine country, the steel of Essen, the bronzes of Berlin and Munich, the toys of Nuremberg and Sonneberg, the carved work of the Hartz Mountains, the philosophical instruments of Berlin and Cassel, to say nothing of the numerous peculiar industries of Berlin, Chemnitz, Frankfort, Stuttgart, Cologne, and Elberfeld—all of which find extensive markets in the United States—would form rich subjects for historical investigation, and the publication of the results prove highly instructive. On some other person with more leisure, and with equal sympathy for the industrial classes, must this pleasant work be devolved.

## IMPORTS FROM GERMANY.

The products of German industry, which comprise the principal imports from that country during the last two fiscal years, as well as the total annual value of our imports since 1868, are shown in the following table:

Articles.	Value of imports.	
	1874.	1873.
Cloth and cassimeres.....	\$3,216,305	\$4,758,363
Dress-goods.....	1,016,384	1,360,576
Other manufactures of wool.....	2,011,025	2,635,365
Silk manufactures.....	5,644,936	13,118,480
Cotton hosiery.....	2,964,863	3,660,602
Other manufactures of cotton.....	3,263,436	4,451,022
Fancy goods.....	1,520,910	1,909,751
Leather, and manufactures of, except gloves.....	1,360,724	2,154,940
Gloves.....	990,261	1,469,620
Buttons.....	841,013	1,149,123
Jewelry and watches.....	1,210,835	2,618,692
Precious stones.....	320,249	692,960
Furs, dressed.....	585,816	931,009
Glass and glassware.....	1,588,623	1,962,956
Iron and steel, and manufactures of.....	1,478,877	1,836,153
Pig-lead.....	696,478	962,736
Books, pamphlets, maps, &c.....	851,536	916,007
Chemicals.....	1,011,062	1,158,155
Wines, spirits, and cordials.....	252,262	449,203
All other merchandise.....	12,824,257	13,206,018
Total imports of merchandise.....	43,909,852	61,401,756
Total in 1872.....		\$46,243,748
Total in 1871.....		25,093,635
Total in 1870.....		27,015,321
Total in 1869.....		25,087,987

## IMMIGRATION INTO THE UNITED STATES FROM GERMANY.

Unlike France, from which we receive the products of the labor of her skilled artisans, but not the artisans themselves, Germany has contributed not only her workmanship, but her workmen. Our annual receipts of her products, as appears from the foregoing statement, average in value over \$33,000,000, while of her sons and daughters, embracing a large number of skilled workmen as well as men of talent and enterprise, we received in a single year, 1854, the large number of 206,054, whose material value at the average stated in another work\* by the author of this report, viz, \$800, reaches nearly \$165,000,000.

The immigration into this country from Germany during the fifty-four years, from 1820 to 1874, was as follows:

1820-'30 .....	7, 729
1831-'40 .....	152, 454
1841-'50 .....	434, 626
1851-'60 .....	951, 667
1861-'70, (closing with December) .....	822, 007
1871 .....	107, 201
1872 .....	155, 595
1873 .....	133, 141
1874 .....	56, 927

Aggregate..... 2, 821, 347

This large addition to our population in a little over half a century has furnished, at the rate above indicated, an increment to our material wealth of \$2,257,077,600.

The census of 1870 shows that of the various nationalities which compose our foreign-born population no less than 1,690,533 were natives of Germany; while of the cities of New York, Chicago, Saint Louis, and Cincinnati from 16 to 20 per cent. of the whole population were of German birth. New York City contained in 1870 more native Germans than the two manufacturing towns of Barmen and Chemnitz; Saint Louis more than the city of Brunswick, and Chicago more than Metz.†

\* Special Report on Immigration, accompanying Information for Immigrants, by Edward Young, Ph. D. Government Printing-Office, Washington, 1871.

† The large German population of several cities of the United States, as compared with the whole population of cities and towns of Germany, will be best illustrated by the following statement:

<i>German population of United States cities in 1870.</i>		<i>Aggregate population of German cities in 1871.</i>	
New York .....	151, 206	Munich .....	169, 612
Saint Louis .....	59, 040	Barmen and Elderfeld .....	146, 849
Chicago .....	52, 316	Cologne .....	129, 251
Philadelphia .....	50, 746	Leipsic .....	102, 575
Cincinnati .....	49, 448	Frankfort-on-the-Main .....	90, 748
Brooklyn .....	36, 769	Bremen .....	82, 990
Baltimore .....	32, 276	Aix-la-Chapelle .....	73, 722
Milwaukee .....	22, 599	Dusseldorf .....	69, 462
Buffalo, N. Y. ....	22, 249	Chemnitz .....	68, 150
Newark, N. J. ....	15, 873	Brunswick .....	57, 380
Cleveland .....	15, 856	Essen .....	51, 768
New Orleans .....	15, 239	Metz .....	51, 707

## COST OF LABOR AND OF SUBSISTENCE IN LOWER SILESIA IN 1868.

Before presenting detailed statements showing the results of personal inquiry into the cost and conditions of labor in Germany in 1872, it may be well to submit the rates of wages existing before the advance in price which followed the termination of the Franco-German war.

A work, published by Mr. Jacobi, on the rates of wages and the material condition of the working-classes in Lower Silesia during the years 1867 and 1868, affords information of great value, especially in regard to factory-operatives at that period. From the numerous and detailed statements only a few have been selected, translations of which are here presented.

*Table showing the rates of wages paid for factory and other labor in Lower Silesia during the year 1868.*

[Rates expressed in United States coin.]

Branches and occupations.	Wages per day.		
	Males.	Females.	Children.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
<b>Bleachers:</b>			
Ordinary hands .....	18 to 36	14½ to 18	.....
Bleachers .....	27 to 33	.....	.....
Manglers .....	36 to 42	.....	.....
Foremen .....	48 to 60	.....	.....
Bookbinders .....	32 to 58	.....	.....
Brewers .....	24 to 36	.....	.....
<b>Brickyards:</b>			
Ordinary work .....	20 to 24	.....	.....
Molders .....	29 to 39	.....	.....
Chamotte-molders .....	33 to 48	.....	.....
On contract-work .....	36 to 60	14 to 20	10 to 17
Average summer wages .....	24 to 42	16 to 18	10 to 18
<b>Cane-factories:</b>			
Turners .....	36 to 66	.....	.....
Engravers .....	36 to 60	.....	.....
Joiners .....	48	.....	.....
Laborers .....	28 to 42	.....	.....
<b>Chemical-works:</b>			
Average wages .....	31½	.....	.....
Fireworks .....	24 to 36	8 to 15	4 to 6
<b>Cigar-factories:</b>			
Strippers .....	.....	16 to 18	6 to 10
Skilled hands .....	\$1 to \$2	24 to 40	.....
Wrappers .....	.....	18 to 24	.....
Rollers .....	24 to 72	.....	.....
Assorters .....	72 to \$1 08	.....	.....
Packers .....	36 to 48	.....	.....
Foremen .....	\$1 50	.....	.....
Distillers .....	8 to 36	.....	.....
<b>Earthenware, glassware, &amp;c.:</b>			
Pottery, molders .....	60 to 72	.....	.....
on ordinary work .....	24 to 60	14 to 22	.....
Stoneware, ordinary work .....	18 to 24	.....	.....
turners .....	24 to 48	.....	.....
painters .....	24 to 42	.....	.....
Porcelain, glazing-makers .....	30 to 36	18 to 24	.....
burners .....	30 to 42	.....	.....
gilders .....	36 to 42	12 to 18	.....
potter-turners .....	48	.....	.....
foremen .....	96	.....	.....

*Rates of wages paid for factory and other labor in Lower Silesia—Cont'd.*

Branches and occupations.	Wages per day.		
	Males.	Females.	Children.
	Cents.	Cents.	Cents.
Glass-works, polishers.....		10 to 24	
melters.....	60		
painters and gilders.....	40 to 72	18 to 36	
skilled hands.....	60 to 96		
bottle-makers.....	48 to 60		
ordinary hands.....	24 to 36	12 to 18	12
Flour-mills:			
Laborers.....	22 to 29		
Assistant millers.....	36 to 60		
Firemen.....	24 to 29		
Machinists.....	33		
Foremen.....	72		
Gas-works, laborers.....	24 to 36		
Hatters:			
Ordinary hands.....	48 to \$1	24 to 36	
Skilled hands.....	\$1 66 to \$2		
Iron-works:			
Laborers.....	18 to 28		
Locksmiths.....	24 to 60		
Machine-builders.....	60 to \$1 08		
Molders.....	42 to 72		12 to 20
Turners.....	52		
Machinists.....	40 to 72		
Watchmen.....	48		
Enamelers.....	36 to 72		
Cutters.....	60 to 72		
Lime-kilns:			
Laborers, in winter.....	20 to 30		
summer.....	24 to 26		
Mining:			
Ordinary labor.....	18 to 24	12	16 to 20
Miners.....	48 to 60		
Drivers.....	36		
Oil-refiners.....	18 to 42	16	
Paper-mills:			
Ordinary laborers.....	21 to 48	10 to 24	8 to 16
Cutters.....	24		
Holland miller.....	30		
Machinists.....	36		
Printers.....	42 to 48	12 to 24	
Railroad-car shop:			
Smiths.....	40 to 72		
Locksmiths.....	36 to 96		
Turners.....	42 to \$1 08		
Screw-cutters.....	30 to 60		
Tinnern.....	42 to 60		
File-cutters.....	48 to 72		
Wheelwrights.....	48 to 96		
Carpenters.....	42 to 66		
Painters.....	48 to 66		
Upholsterers.....	36 to 60		
Laborers.....	34		
Starch-factories.....	18 to 36	12 to 17	
Silver-smiths.....	60 to 84	24 to 60	12 to 15
Saw-mills:			
Laborers.....	26 to 43		
Machinists.....	36 to 60		
Foremen.....	48		
Spinning flax.....	24 to 42	12 to 30	12 to 24
cotton.....	20 to 42	12 to 18	9 to 12
wool.....	18 to 48	14 to 24	6 to 18

*Rates of wages paid for factory and other labor in Lower Silesia—Cont'd.*

Branches and occupations.	Wages per day.		
	Males.	Females.	Children.
	Cents.	Cents.	Cents.
Sugar-refiners.....	14 to 36	9 to 15	.....
Tanners.....	36 to 60	12 to 15	.....
Toy-factories:			
Ordinary laborers.....	18 to 36	10 to 24	.....
Turners.....	36 to 48	.....	.....
Sculptors.....	36 to \$1 08	.....	.....
Watch-factory workmen.....	24 to 72	.....	15
Woolen-factories:			
Carders.....	20 to 54	14 to 18	.....
Fullers.....	24	15	.....
Shearers.....	29 to 36	.....	.....
Foremen.....	\$1 08	.....	.....

The regular wages of workmen average, in summer and winter, from 16.8 cents to 24 cents (gold) per day; of females, from 8.4 to 14.4 cents per day, more nearly approaching the higher rate. During the short winter days workmen receive, for eight hours' labor, from 10 to 14.4 cents; the females, 7.2 cents; while in summer, for twelve to thirteen hours' labor the relative wages are from 19.2 to 28.8 cents, and from 14.4 to 19.2 cents, respectively. The wages of those working in the royal forests are so regulated as to average 24 cents per day for males, and 14.4 cents per day for females; in some mountain countries the latter receive but 12 cents.

In larger cities wages rise above these rates, especially for skilled labor. Men working on railroads receive in summer from 28.8 to 36 cents per day; and women from 16.8 to 26.4 cents. In the larger cities ordinary female help in house-keeping is paid from 24 to 26.4 cents.

Work done by the piece, or by contract, is paid about one-third more than the customary wages. A common laborer expects, in contract work, from 36 to 48 cents; at railroad work, even more.

When work is scarce the wages often fall to about 16.8 cents per day for males, and 9.6 cents for females.

Labor is often paid by the hour, at from 1.4 to 3 cents for males, and 0.4 to 2 cents for females; 2.4 cents per hour are the wages of an able field laborer in the mountains.

During the summer especially, opportunities for work are offered to children, who receive from 6.11 to 7.2 cents per day, and in winter about 4.8 cents.

Wherever the work rises above mere manual labor in a trade or factory, the daily wages of men are from 30 to 48 cents, and often rise to 60 cents. Miners at tunneling are frequently paid 72 cents, (1 thaler;) in the district of Görlitz, a brick-maker, aided by his wife, averages 80 cents per day; in the district of Jauer from \$5.76 to \$7.20 per week. Skilled workmen of large experience receive from \$360 to \$432 per annum. The wages of the molders and enamellers in iron-foundries, of the locksmiths and joiners in machine-works, in piano factories, amount to from 72 cents to \$1.08 per day; the same in manufactories of glass, silver-ware, and watches, and hat-factories. The highest wages paid to a very skillful joiner in a piano-forte factory were \$12.24 per week.

Wages for female labor are more uniform throughout; 18 cents per day can be earned by a skillful hand; 24 cents per day very rarely.

Juvenile laborers in factories begin with wages of 48 cents per week, for 10 hours' work daily, and rise to 72 cents per week. The law prohibits the employment of children under twelve years of age; from twelve to fourteen years it permits 6 hours, and from fourteen to sixteen years, 10 hours daily.

The general average of daily wages is as follows: Males, for 12 hours' work per day, in the country, 19.2 cents; in cities, 24 cents; harder labor, 30 cents; in cities, 36 cents; skilled labor, 60 cents.

The wages of master-workmen, overseers, &c., are not included in the above average, but are at least \$172 per annum.

In regard to the time of work, laborers in factories are employed 11 to 12 hours per day, (exclusive of time for meals;) where work is continued day and night, the hours for the day are from 6 to 12 a. m., and 1 to 7 p. m.; for the night, from 7 p. m. to 6 a. m., with  $\frac{1}{2}$  hour recess; in a few districts 10 hours constitute a day's work. In many cloth-factories and wool-spinneries, males and females work 12 to 13 hours, and some even 16 hours per day. As an example, a cloth-factory employs firemen and machinists 16 hours, spinners and dyers 14 hours, all others 12 hours, exclusive of time for meals.

In glass-works, the nature of the work requires from 16 to 18 hours for melters, 13 to 15 hours for blowers; but then one party rests while the other works.

The wages of journeymen in the following trades, including board and lodging, are as follows:

	Per week.
Bakers .....	\$0 92
Butchers .....	72
Smiths .....	1 08
Tinners .....	2 52
Wheelwrights .....	2 16
Furriers .....	2 16
Saddlers .....	72
Locksmiths .....	2 52
Tailors .....	2 52
Shoemakers .....	1 44
Fresco-painters .....	3 42
Cabinet-makers .....	\$2 88 to 3 60
Cloth-weavers .....	1 44 to 2 16

From the reports of the chambers of commerce of Germany the following labor statistics are collected:

In the coal-mines of Rhenish Prussia, average daily wages of 3,661 laborers, with families of 8,572 persons, males .....	\$0 64
Iron-foundry, (Duisburg,) average wages per day, founders .....	\$0 65 to 72
Other skilled workmen .....	54
Laborers .....	43
Machinists and locksmiths .....	58
In two iron-foundries, same district, average daily wages, respectively .....	58 and 65
Iron-bridge establishment .....	55
Safe-factory, average yearly earnings .....	182 80
Zinc establishments, average wages, first-class hands .....	94
second-class hands .....	72
other laborers .....	53
Cotton-factories, average wages per hand, including children .....	41
Cotton-spinning, average wages per hand, (mostly young persons) .....	36

Average weekly wages paid in the coal-mines of Plauen, (Saxony): To miners, \$3.10; to laborers, \$1.96; and to boys, 40 cents.

#### WAGES AND COST OF LIVING IN DIFFERENT DISTRICTS OF LOWER SILESIA.

##### 1. District of Bolkenhain.

The annual expenses of a family of about five persons, (three children,) belonging to the working class, were as follows:

Provisions, (per day, 14.4 to 16.8 cents,) per year .....	\$60 00
Rent, (8 thalers) .....	5 76
Fuel .....	3 60
Clothing, linen, &c .....	14 40
Furniture, tools, &c .....	7 20
Taxes: State, 0.72; church, 12; commune, 36 .....	\$1 20
School for two children .....	2 50
	<hr/> 3 70

Total .....

The expenses of a laborer's family being 24 to 26.4 cents per day, the earnings should be 28 to 30.8 cents per day, which the head of the family cannot earn. While his earnings are from 17 to 19 cents, the wife earns 8 to 10 cents, and the children must help as soon as old enough. Miners in this district have 24 to 29 cents daily wages; factory-men from 19 to 29 cents; mechanics receive 48 to 54 cents per week, besides board; male house-servants \$17 to \$30, and females \$12 per annum, exclusive of board and lodging.

##### 2. District of Landshut.

Expenses of a family:

	In the country.	In a city.
Rent, per annum .....	\$5 76	\$10 72
Provisions, (per week, 90 cents,) per annum .....	46 80 (per week, \$1.08)	56 10
Fuel and light, per annum .....	14 40	16 42
Taxes, &c., per annum .....	3 60	4 32
Clothing, &c., per annum .....	8 56	10 00
Other expenses, per annum .....	7 20	8 57
Total .....	<hr/> 86 32	<hr/> 106 13



The income of laborers' (weavers') families does not generally reach these amounts. Many are permitted to gather their wood from the royal forests, and spend little for clothing, which they beg from charitable neighbors. A weaver earns here from 48 to 72 cents, \$1 and \$1.50 per week; most weavers have two looms in operation, and together with their wives earn from \$1.50 to \$2.16 per week. The average earnings of weavers are given at 96 cents per week, or about \$50 per annum.

### 3. District of Hirschberg.

The lowest cost of living for a laborer's family is given at \$64.80 to \$72 per annum, of which are expended for provisions, \$43.30; for clothing, \$17; taxes, \$3.16; fuel, \$3.60; rent, \$4, &c. In the summer the wages for 12 hours' daily work, for males, are from 15 to 39 cents; for females, 5 to 17 cents per day; in winter from 3 to 7 cents less. A male farm-hand receives \$12 to \$22 per year; a boy, \$9 to \$14; a maid-servant, \$12 to \$18 per annum with board.

The annual expenses of a laborer's family, living in a comfortable manner, without luxuries, would be nearly double the amount actually expended above.

The following is an estimate:

Rent, (one room, alcove and bed-room) .....	\$8 64
Fuel and light.....	14 40
Provisions, (breakfast, coffee; at noon, potatoes, dumpling—10 cents; evening, bread, a little brandy—5 cents; supper, soup, bread, vegetables—6 cents) ....	75 00
Clothing, (husband, \$6.48; wife, \$5.76; children, \$7.20, soap, 72 cents) .....	20 16
Taxes, &c.....	2 16
Schooling of children, (2½ cents per week per child).....	3 60
School-books.....	72
To lay by for sickness, &c.....	8 58
Unforeseen expenses.....	8 58
<b>Total</b> .....	<b>141 84</b>

### 4. District of Schönan.

The ordinary yearly wages, in addition to board, paid to servants in this rural district, were as follows: Man-servant, \$14.40 to \$21.60; boys, \$8.64 to \$12.96; maid-servants, \$8.64 to \$17.28; child's nurses, \$5.76 to \$12.96.

During the harvest the daily wages for fourteen hours' work are as follows: Mowers, from 19.2 to 23.8 cents; laborers, (males,) from 19.2 to 24 cents; females, from 14.4 to 17 cents.

In other seasons males receive, for ten hours' daily labor, from 14.4 to 19.2 cents, and females 12 to 14.4 cents per day; and in winter males receive 12 cents, and females 7.4 to 9.6 cents. A laborer in the cities receives from 24 to 28.8 cents per day; the "fellows" (journeymen) of trades receive from 60 cents to \$1.20 per week, and board.

A laborer's family of five persons requires for its subsistence during the year the following amount: For provisions, \$72 to \$85.72; rent of one room and three bedrooms, \$4.32; clothing, &c., \$10.80; fuel, &c., \$3.60; taxes, &c., \$3.60. Total, \$108.04.

### 5. District of Goldberg.

The cost of living of a laborer's family (husband, wife, and two children) in this district is thus given: Provisions, \$75.60; rent, \$4.32; fuel, \$7.20; clothing, \$10.02; furniture, tools, &c., 72 cents; taxes, &c., \$2.28. Total, \$100.14. In less expensive times provisions have been estimated at \$20 less.

In the rural portion men receive 21.6 cents, women 14.4 cents for a day's work; this average includes higher wages for skilled labor.

On a farm a man-servant receives \$17.20 per year, in addition to board, &c., which may be estimated at \$43.20; a maid-servant receives \$14.40, besides board.

Laborers in stone-quarries earn from 24 to 43.2 cents per day; in cloth factories, 1.8 to 2.2 cents per hour, while the daily wages of carpenters are from 33.6 to 38.4 cents; masons, 33.6 to 45.6 cents; roof-slaters, 33.6 to 45.6.

Shoemakers and tailors receive from 9 to 10 cents, besides their board and lodging, which is valued at 12 cents.

### 6. District of Löwenberg.

The yearly expenses of a family with three children are estimated at from \$93.60 to \$108, namely:

	City.	Country.
Rent .....	\$10 60	\$4 32
Provisions, (\$1.20 per week).....	62 40	55 72
Fuel and lights.....	12 66	10 80
Taxes, school, &c.....	3 60	3 60
Clothing, &c.....	12 85	12 85
Other expenses.....	5 76	5 76
<b>Total</b> .....	<b>107 87</b>	<b>93 05</b>

Wages are as follows:

Men, day-laborers, from 14.4 to 28.8 cents per day; women, 12 to 18 cents per day; men, with board, 9.6 to 14.4 cents per day; women, with board, 7.2 to 12 cents per day. From ten to fourteen hours constitute a day's labor; more hours and harder work secure higher wages.

Male servants per year, \$14.40 to \$36, and board; female, per year, \$8.57 to \$21.60, and board.

Journeyman in trades obtain the following:

Wages per week with board and lodging.	In cities.		In the country.	
	Minimum.	Maximum.	Minimum.	Maximum.
Smiths .....	\$0 54	\$0 72	\$0 42	\$0 72
Wheelwrights .....	54	72	42	72
Shoemakers .....	54	60	42	72
Tailors .....	54	72	30	60
Cabinet-makers .....	54	72	42	72

### 7. City of Greifenberg.

The subsistence of a workingman's family, consisting of five—man, wife, and three children—is thus given:

#### INCOME.

A mason receives 33.6 cents per day, regular work, thirty-two weeks in the year .....	\$64 52
Weaving or other work, four months, at 48 to 60 cents per week, say .....	8 00
Yearly earnings of wife .....	7 20
<b>Total</b> .....	<b>79 72</b>
A day-laborer receives 24 cents per day, or \$1.44 per week, regular work, forty weeks .....	\$57 60
During the rest of the year he and his wife may earn .....	14 40
<b>Total</b> .....	<b>72 00</b>

A carpenter earns a little more than a mason, his chances for winter-labor being better. A weaver, working at home, makes less than the day-laborer; those in the factory earn per year, \$72.

#### EXPENSES OF A FAMILY.

Rent, \$8.64; clothing, \$14.40, (shoes being a large item;); light, \$1.44; fuel, \$5.04; repairing tools, 72 cents; taxes, \$1.44; school for three children, \$1.44. Total, \$33.12.

Provisions.—The meals consist of potatoes and bread, their means not being sufficient to allow meat: Potatoes, twenty bushels, \$10.08; bread, (6 cents per day,) \$21.90; coffee, (chicory, four pounds per week,) \$2.88; butter, (one-half pound per week,) lard, herring, salt, (24 cents per week,) \$12.48. Total, \$47.26. Aggregate expenses, \$80.38.

NOTE.—If the work is not regular, the demands of the family must be curtailed, and suffering often takes place.

### 8. District of Görlitz.

Here the condition of the laborer appears more comfortable, since work can be found throughout the year.

Masons and carpenters earn 36 to 43.4 cents per day; railroad-laborers, 26.4 to 28.8; field-laborers, 21.6 to 23.8, and females, 14.5 to 24.

The lowest expenses for a family consisting of four or five persons are thus computed:

Provisions .....	\$57 60	to	\$85 72
Rent, lights, and fuel .....	11 52	to	21 10
Clothing .....	13 57	to	18 00
Tools, &c. ....	1 44	to	2 88
School .....	1 44	to	2 88
Taxes .....	72	to	1 44
<b>Total</b> .....	<b>86 29</b>	<b>to</b>	<b>132 02</b>

By careful inquiries it has been ascertained that a family can earn from \$93.60 to \$144 a year, so that some lay up small savings.

For the city of Görlitz the average income of a laborer's family is estimated at \$96 to \$144 a year; the expenses for four or five persons, from \$115 to \$172.80, namely:

Rent, lights, and fuel.....	\$22 72	to	\$32 15
Clothing, &c.....	14 40	to	21 60
Tools, furniture, &c.....	1 44	to	5 76
School.....	4 32	to	5 94
Provisions.....	72 00	to	108 25
Total.....	114 88	to	172 80

#### 9. District of Glogau.

##### Farm-laborers' income:

Males: 6 weeks in harvest, at 30 cents per day.....	\$10 80
14 weeks, (sowing and haymaking,) at 24 cents per day.....	20 16
15 weeks, fall and spring, at 18 cents per day.....	16 20
15 weeks, winter, at 14.4 cents per day.....	12 96
Total, 50 weeks.....	\$60 12
Females: 6 weeks, at 12 cents per day, (5 days per week).....	\$3 60
14 weeks, at 9.6 cents per day.....	6 72
15 weeks, at 8.4 cents per day.....	6 30
15 weeks, at 7.2 cents per day.....	5 40
Total, 50 weeks.....	22 02
Grand total.....	82 14

##### Expenses of a family of three children:

16 sheffels* rye, at \$1.32.....	\$21 12
2 sheffels wheat, at \$1.80.....	3 60
2 sheffels barley, at \$1.20.....	2 40
2 sheffels peas, at \$1.44.....	2 88
2 sheffels millet, at \$1.44.....	2 88
24 bags potatoes, at 38.4 cents.....	9 22
52 pounds butter, at 19.2 cents.....	9 96
183 quarts milk, at 24 cents.....	4 40
Meat, (2 quarters mutton, \$3.60; 1 pig, \$10.60).....	14 40
52 pounds salt, at .024.....	1 25
Rent, \$5.76; light, \$1.52.....	7 28
Fuel, (wood, \$9.72; coal, \$3.18).....	13 90
Clothing.....	18 72
Taxes, and other expenses.....	8 00
Total.....	119 03

As, according to these statistics, a man and wife can earn but \$82.14 per year, a deficiency of \$36.89 must be made up by the work of the children, or by extra labor in the summer, especially at harvest-time.

#### 10. District of Liegnitz.

##### Expenses of a family with three children:

Provisions—bread, 1 pound of flour per head, daily.....	\$26 52
potatoes, $\frac{1}{2}$ bag, or 75 pounds per week, at 18 cents.....	9 36
barley, 2 sheffels, at 96 cents.....	96
peas, 1 sheffel, at \$1.08.....	1 08
butter, 1 to $1\frac{1}{2}$ pounds per week, $71\frac{1}{2}$ pounds per year, at 19 cents.....	13 73
milk, 4 quarts daily, at 4 cents.....	5 84
meat, 1 swine for fattening, or 1 pound per week.....	5 56
salt, 1 pound per week, at 2.4 cents.....	1 25
coffee, chicory, sugar.....	4 32
wheat flour for cake on holidays.....	1 32
beer.....	96
Total.....	70 84

\* 1 sheffel equals 1.56 bushels, United States.

Rent for a room, a garret-room, and small space, per annum.....	\$7 20
Light, oil for 36 to 39 weeks, $\frac{1}{4}$ to $\frac{1}{2}$ pound, at 6 cents.....	2 34
Fuel, during 6 winter-months, 20 cents; summer, 10 cents per week.....	8 00
Clothing—husband, 2 shirts, at 72 cents.....	\$1 44
1 pair of boots.....	2 88
pantaloon, (three pairs in two years).....	72
coat, &c.....	72
	5 76
wife—2 chemises.....	1 44
1 pair of shoes.....	1 20
dress, &c.....	2 64
	5 28
children—6 shirts, at 36 cents each.....	2 16
3 pairs of shoes.....	2 16
clothing.....	2 16
	6 48
Soap, for washing.....	1 20
Tools, for repair of.....	1 44
Taxes—income, 72 cents; communal, 38.4 cents; school, including books, \$2.556.....	3 60
Total expenses.....	112 14
Income of a family with two children:	
Husband averages 305 days, at 21.6 cents.....	\$65 88
Wife averages 250 days, at 10.04 cents.....	26 00
Oldest child averages 60 days, at 7.2 cents.....	4 32
Every married woman receives—	
1 sheffel wheat.....	\$1 80
2 sheffels rye.....	2 16
2 sheffels barley.....	1 92
1 sheffel peas.....	1 08
	6 96
He can raise on a patch of land 10 bags potatoes, valued at.....	2 88
And glean at harvest 3 sheffels of rye or barley.....	3 06
For extra work through the year.....	8 64
For a fat pig.....	5 76
	123 50

In the city of Liegnitz the average expense of a laborer's family is estimated at \$141.84 per year.

#### WAGES IN GERMANY IN 1870.

The following information, in regard to the rates of wages paid in other parts of Germany in the year 1870, was obtained from another source:

*Coal-mines in Hanover, Deister River.*—Workmen employed, 502; average annual earnings, \$135.53.

*Coal-mines at Kniggenbrücke.*—Workmen employed, 141; average monthly earnings, \$10.08 to \$12.24.

*Turkish-carpet factory in Silesia.*—Males, \$1.80 to \$2.88 per week; females \$1.08 to \$2.16 per week.

*Silk-manufactures in Crefeld.*—Employed in 1867: masters, fellows, and apprentices, 20,449; total wages paid, \$2,591,387; average per capita, \$126.70. In 1870, masters, fellows, and apprentices, 28,213; total wages paid, \$3,820,711; average per capita, \$135.45.

The wages of carpenters and builders increased 15 to 20 per cent. in 1870.

*Weaving in Osterode.*—Weavers and spinners, per day, 30 to 36 cents; children, per day, 12 to 18 and 24 cents.

*Iron-mines near Duisburg.*—Employed in 1870, 694 miners, &c.; wages, \$184,400; annual average, \$150.43. Hands, furnaces, &c., employed, 305; wages, \$56,903; average, \$186.56.

*Iron-works, "Vulcan."*—Melters, per day, 72 cents; job-workers, 53 cents; contract-workers, 63 cents; ordinary hands, 46 cents.

*Manufactory of crucibles, retorts, &c.*—Hands employed, 159; wages, \$33,409.44; average, \$210.12.

*Wharves at Ruhrort.*—Laborers, in summer, 72 cents per day; in winter, 48 cents per day.

*Iron-works at Borbeck.*—Employ 237 men, at average daily wages of 53 cents.

*Zinc-works at Borbeck.*—Employ 295 men; total wages for the year, \$65,900.16; average, \$223.40.

*Iron-works at Kupfardrew.*—Employ, in mines, 226 men, at average daily wages of 57 cents; in near furnaces, 181 men, at average daily wages of 52 cents.

First-class melters, per day, 99 cents; second-class melters, per day, 76 cents; third-class melters, per day, 62 cents; firemen, per day, 99 cents; laborers, per day, 51 cents.

*Salt-works at Luenenburg.*—Employ 120 men; total wages, \$14,356.80; average, \$119.64.

*Iron-works at Luenenburg.*—Employ 290 men; total wages, \$40,521.60; average, \$139.73.

*Gypsum-factory at Luenenburg.*—Employs 46 men; total wages, \$3,272.40; average, \$71.14.

*Manure-factory at Luenenburg.*—Employs 70 men; total wages, \$5,400; average, \$77.14.

*Cooper-shop at Luenenburg.*—Employs 34 men; total wages, \$5,703.84; average, \$167.76.

*Coal-mines near Lauban.*—Hewers, per day, 46 to 53 cents; drawers, per day, 30 to 44 cents; ordinary laborers, per day, 11 cents.

*Railroad-works near Lauban.*—Employ 175 hands; total wages, \$33,336; average, \$190.49.

#### FACTORY-LABOR IN 1871.

The following statement of the rates paid for factory-labor has been prepared from the Annual Report of the Chamber of Commerce of Plauen, Saxony, for 1871:

Occupations.	Weekly wages.	
<b>Iron-founderies:</b>		
Pattern-makers .....	\$2	88
Locksmiths .....	2	16
Laborers .....	1	44
Apprentices .....	1	06
<b>In the Upper Erz Mountains:</b>		
Molders .....	\$2 88 to	5 04
Molders' apprentices .....	2 16 to	3 60
Carpenters .....		3 60
Polishers .....	2 88 to	3 60
Blacksmiths .....	2 88 to	3 60
<b>In founderies at Crimmit-schau:</b>		
Foreman .....	7 20 to	10 30
Molders .....	2 88 to	5 04
Joiners .....		3 60
Apprentices .....	2 16 to	3 60
Smiths .....	2 88 to	3 96
<b>Iron-founderies at Reichenbach:</b>		
Molders .....		3 60
Apprentices .....	72 to	2 52
Other hands .....	1 80 to	2 16
<b>Machine-works:</b>		
Turners .....	3 60 to	8 64
Locksmiths .....	2 88 to	4 32
Joiners .....	2 88 to	5 04
Other mechanics .....	2 16 to	2 88
Apprentices .....	72 to	2 16

<b>Machine-works at Werdan :</b>		
Workmen .....	\$2 16 to	\$3 60
<b>Machine-works at Zureckau :</b>		
Locksmiths, turners, &c. ....	3 24 to	4 32
Other mechanics .....	2 42 to	2 88
Apprentices .....	72 to	2 16
<b>Machine-works at Reichenbach :</b>		
Smiths .....		4 32
Turners and joiners .....		3 60
Locksmiths .....		3 25
Apprentices .....	72 to	2 88
<b>Machine-works at Plauen :</b>		
Locksmiths .....		2 88
Turners .....	2 88 to	3 60
Smiths .....	3 24 to	3 60
Joiners .....	2 88 to	3 24
Apprentices .....		72
Laborers .....		2 42
<b>Machine-works at Lower Schlema :</b>		
Turners .....	2 16 to	3 44
Locksmiths .....	2 52 to	4 32
Joiners .....	2 64 to	4 32
Blacksmiths .....		2 88
Apprentices .....		1 06
<b>Machine-works at Aue :</b>		
Turners, locksmiths, &c. ....	1 80 to	2 88
Founders .....	2 16 to	2 88
<b>Musical-instrument factories :</b>		
Average .....		3 10
Some as high as .....		5 42
Violin-string makers .....		8 04
Other factories pay, average wages the best hands .....	2 16 to	3 24 5 04
<b>Clock and watch factories :</b>		
Superintending the erection of large clocks, per day .....	\$1.80	
Watch-makers .....	per week	2 16 to 2 88
Clock-makers .....		2 52
Apprentices .....		96
Case-makers .....		2 40
Joiners .....		2 88
Sign-painters .....	2 16 to	2 88
Chain-makers .....		1 44
Other workmen .....	1 80 to	2 16
<b>Tin-ware factory :</b>		
Tinsmiths .....	2 16 to	3 60
<b>Silver-ware :</b>		
Workmen .....	1 20 to	2 16
<b>Spoon-factories :</b>		
Cutters, polishers, &c. ....	1 80 to	3 60
Overseer .....		4 32
<b>Silver-ware works at Reichenbach :</b>		
Workmen .....	2 16 to	3 60
Boys .....	72 to	1 08
<b>Sand-paper factories :</b>		
Workmen, with board .....	2 52 to	2 88
Boys .....	1 08 to	1 44
<b>Glass-works :</b>		
Laborers .....	1 44 to	3 60
<b>Dye-stuff and varnish factories :</b>		
Males .....	41c. to 60c. per day..	2 46 to 3 60
Females .....	24c. to 39c. per day..	1 44 to 2 34
<b>Confectioners :</b>		
Males .....		3 55 to 5 40
Females .....		1 25
<b>Textile factories :</b>		
Yarn-spinning, girls (over 14 years) .....	1 44 to	1 66
Wool-sorters .....		3 06
Washers .....	2 16 to	3 06
Cleaners .....		2 10

## Textile factories:

At spreading-machines, (girls).....		\$2 83
Spinners.....	\$2 42 to	3 12
Packers.....		2 52
Overseer.....		3 60
Spinning-master.....		4 32
Ordinary hands.....	1 20 to	1 80
Females, (at combing).....		1 56
Other females.....	1 06 to	1 44
Highest wages.....	2 88 to	4 32
Rope-makers:		
Best hands.....	3 60 to	4 22
Boys, (15 to 17 years of age).....		1 44
Cotton factories, (power-looms:)		
Cotton-weavers.....	2 68 to	3 12
Cotton-weavers, girls, maximum.....		3 46
Cotton-weavers, males, maximum.....		5 51
Another establishment gives the average earnings of—		
Males.....		2 64
Females.....		2 34
Maximum rates.....	4 32 to	5 04
Woolen-cloth weavers are generally paid according to the number of threads per inch, and ordinarily earn.....		
Shearers, females.....	1 80 to	2 16
Weavers on steam-power looms, females.....	1 44 to	1 80
Chain-spoolers.....	1 80 to	2 52
Bleaching, males.....		1 44
Maximum.....	2 70 to	2 88
Dyeing, males.....	4 32 to	4 32
Cloths, cassimeres, &c.:	2 52 to	2 88
Walker.....	3 60 to	5 04
Rougher.....	2 52 to	3 24
Shearers, girls.....	1 44 to	2 32
Card-cleaners.....	1 44 to	1 68
Boys.....		1 20
Dyers.....		1 68
Embroiderers, females.....	5 36 to	7 56
Embroiderers on linen, jaconet, &c., net from \$113.76 to \$137.50 per year.		
Drawers of designs.....	2 88 to	5 04
Lace-weavers and knitters, women.....	1 25 to	2 16
Girls.....	72 to	1 32
Stocking-weavers.....	1 08 to	1 44
And exceptionally.....	1 50 to	2 16
Tanners, males.....	2 88 to	5 04
Kid-glove makers:		
Cutters.....	10 80 to	21 60
Sewers, females.....		2 16
Dyers.....		2 88
Glove-sewers, per dozen, 67c. to \$1.08.		
Brush-makers:		
Males.....	2 16 to	4 32
Females.....	1 00 to	2 16
Joiners and polishers.....	2 88 to	5 04
Wood sawyers:		
By hand.....	2 16 to	2 88
In steam saw-mill.....	3 60 to	3 96
Shoe-last-factory hands.....	2 16 to	2 84
Basket-makers.....	1 32 to	2 88
Book-binders:		
Men.....	2 88 to	4 32
Women.....	1 44 to	2 88
Earnings of coal-miners and turf-diggers:		
Coal-miners, average earnings per year, in 1862.....	\$121 60	
" " " " 1868.....	154 18	
" " " " 1871.....	187 92	
Turf-diggers, per 1,000, from 60 to 70 cents.		
Turf-cutters, per 1,000, from 18 to 20 cents.		

## FACTORY LABOR IN 1872.

In the months of August and September, 1872, the author of this report personally visited the principal manufacturing towns in Germany, especially those in Saxony and Rhenish Prussia, for the purpose of obtaining information in regard to the cost of labor, the condition of the workmen and their families, and the cost of provisions and other articles of domestic consumption. In the prosecution of the inquiry he was aided by the United States consuls, and particularly by the agents of a well-known mercantile firm in New York,\* who, at the request of their principals, obtained from the manufacturers from whom they make extensive purchases, statements of the prices paid in each establishment for the various kinds of labor. In submitting the information thus obtained by himself and others, the author expresses his conviction that the utmost confidence can be placed in the accuracy of the figures contained in the following statements:

## I.—RATES OF WAGES IN GERMANY.

*Statements showing the rates of wages paid by manufacturing establishments in Germany in the year 1872.*

[Prussian thaler computed at 72 cents United States gold coin.]

Occupations.	Men.	Women.	Children.
<b>COTTON MANUFACTORIES.</b>			
<i>Manufacture of white cotton goods and embroideries in Plauen, Saxony.</i>			
	<i>Per week.</i>	<i>Per week.</i>	<i>Per week.</i>
Machine-loom, weavers, (12 hours per day) .....	\$2 88 to \$3 06	.....	.....
Machine-loom, spoolers, (12 hours per day) .....	1 86	.....	.....
Machine-loom, foremen, (12 hours per day) .....	4 32	.....	.....
Hand-loom, weavers, (11 hours per day) .....	2 16 to 2 52	.....	.....
Spoolers and cutters .....		\$1 68 to \$1 80	.....
Cleaners and winders .....		2 16 to 2 42	.....
Finishers .....	4 32 to 5 76	.....	.....
Weavers, (chiefly piece-work) .....	2 88 to 4 32	.....	.....
Machine-embroiderers paid by the number of stitches .....	4 32 to 7 20	.....	.....
Needle-threaders of embroidering-machines .....		1 80 to 2 16	.....
Quilters .....		1 50 to 2 16	.....
Mull-weavers .....		2 16 to 2 52	.....
<i>Auerbach, Saxony.</i>			
Quilters .....		1 44 to 2 16	.....
Threaders, at machines .....		1 44 to 1 80	.....
Threaders, at machines, children, (half-timers) .....			72 to 84
Machine-embroiderers .....	2 88 to 5 04	.....	.....
<i>Eidenstock, Saxony.</i>			
Machine-embroiderers .....	4 32 to 5 04	.....	.....
Yarn-threaders .....			72 to 96
Machine-tender .....		2 04 to 2 16	.....
(Hours of labor, 10 to 12 per day.)			



*Rates of wages paid by manufacturing establishments in Germany—Cont'd.*

Occupations.	Men.	Women.	Children.
<i>Employés working mostly at home :</i>	<i>Per day.</i>	<i>Per day.</i>	<i>Per day.</i>
Sewers or embroiderers .....	.....	\$0 30 to \$0 60	.....
Ironers, quilters, &c. ....	.....	24 to 30	.....
Machine-embroiderers .....	.....	72 to 1 08	.....
Lace-makers .....	.....	29 to 36	.....
Corset-sewers, cutters .....	.....	24 to 30	.....
Glove-cutters .....	\$0 72 to \$0 96	.....	.....
Leather-dyers .....	48 to 54	.....	.....
Glove-sewers .....	.....	36 to 42	.....
(Hours of labor, 11 to 12 per day.)			
<i>Johanngeorgenstadt, Saxony.</i>			
Ribbon-purlers .....	.....	12 to 14	.....
Ribbon-quilters .....	.....	24 to 36	.....
Embroiderers of table-covers, &c. ....	.....	36 to 60	.....
Sewers of kid gloves .....	.....	24 to 30	.....
Cutters of kid gloves .....	1 08 to 1 44	.....	.....
Fancy-box joiners .....	48 to 60	.....	.....
Assistants .....	<i>Per week.</i> 1 80 to 2 16	<i>Per week.</i>	<i>Per week.</i>
<i>Baerenwalde, Saxony.</i>			
Lace-factory .....	.....	1 44 to 2 16	.....
Embroiderers .....	.....	1 80 to 2 16	.....
Finishers .....	2 16	.....	.....
Chantilly-lace workers .....	.....	1 44 to 2 16	.....
(Hours of labor, 12 per day.)			
<i>Crefeld, Prussia.</i>			
Silk-velvet factory :			
Weavers .....	4 32 to 5 04	.....	.....
Warpers .....	2 88 to 3 24	2 88 to 3 24	.....
Spoolers .....	.....	.....	\$1 44 to \$1 80
Dressers .....	3 60 to 4 32	.....	.....
(Hours of labor, 60 per week.)			
<i>Rheydt, Prussia.</i>			
Silk-velvet factory :			
Weavers .....	3 60 to 4 68	.....	.....
Warpers .....	2 16 to 3 24	2 16 to 3 24	.....
Spoolers .....	.....	1 32 to 1 80	1 32 to 1 80
Dressers .....	2 52 to 3 24	.....	.....
Day-laborers .....	1 44 to 2 16	.....	.....
(Hours of labor, 60 per week.)			
<i>Viersen, Prussia.</i>			
Silk-velvet factory :			
Weavers .....	3 60 to 5 04	.....	.....
Warpers .....	2 88 to 3 24	2 88 to 3 24	.....
Spoolers .....	.....	1 44 to 1 68	1 44 to 1 68
Dressers .....	2 88 to 3 60	.....	.....
(Hours of labor, 60 per week.)			
<i>Crefeld, Prussia.</i>			
Piece-silks :			
Dyers .....	3 24 to 4 32	.....	.....
Spoolers .....	.....	1 44 to 1 80	1 44 to 1 80

*Rates of wages paid by manufacturing establishments in Germany—Cont'd.*

Occupations.	Men.	Women.	Children.
<b>Piece-silks—Continued.</b>	<i>Per week.</i>	<i>Per week.</i>	<i>Per week.</i>
Warpers.....		\$2 16	
Weavers, on ordinary taffeta silk.....	\$2 88		
Weavers, on medium taffeta silk.....	3 60		
Weavers, heavy taffeta silk.....	\$3 60 to \$4 32		
Weavers, satin, cotton wool.....	2 88 to 3 60		
Weavers, Turquoise, cotton wool.....	3 60 to 4 32		
Weavers, reps, cotton wool.....	2 88 to 3 60		
Weavers, dressers.....	3 24 to 4 32		
(Hours of labor, 10 to 12 per day.)			
<i>Rheydt, Prussia.</i>			
<b>Piece-silks:</b>			
Weavers, silk.....	2 16 to 5 04		
Weavers, satins.....	2 88 to 5 04		
Spoolers, silk.....		\$1 44 to 2 16	\$1 44 to \$2 16
Spoolers, cotton.....		1 15 to 1 68	
Warpers.....		1 80 to 2 16	
Dressers.....	2 88 to 3 60		
(Hours of labor, 10 per day.)			
Silk ribbons, Wermelskirchen, Prussia, work people.....	2 88 to 4 32	1 80 to 2 88	
Silk ribbons, Langenberg, Prussia..	2 88 to 7 20	1 44 to 3 60	
<i>Annaberg, Saxony.</i>			
<b>Fringe-factory:</b>			
Weavers working on looms, fine work.....	3 60 to 4 32		
Weavers, ordinary work.....	2 16		
Fringe-makers.....		2 16	
Sewers of loop-lace and other ornaments.....		1 68 to 2 16	
(Hours of work, 10 to 11 per day.)			
<i>Buchholz, Saxony.</i>			
<b>Fringe-factory:</b>			
Silk-fringe weavers.....	2 16 to 2 88		
Cotton-fringe weavers.....	1 44 to 2 16		
Sewers, on trimmings, &c.....		1 80 to 2 16	
(Hours of labor, 10 per day.)			
<i>Buchholz, Saxony.</i>			
<b>Fringe-factory:</b>			
Half silk, and silk fringes, loom-work.....	1 80 to 2 52		
Half silk, and silk fringes, hand-work.....		1 44 to 2 16	
Half silk, and cotton trimmings, &c.....	1 44 to 2 16		
Woolen lace.....	1 08 to 1 80		
Silk guipure-lace.....	1 20 to 1 44		
(Hours of labor, 12 per day.)			
<i>Hohenstein, Saxony.</i>			
<b>Cotton hosiery:</b>			
Workmen at Paget machine.....	2 64 to 3 60		
Edgers.....	2 88 to 3 60		
Workers on round looms.....		1 20 to 1 44	
Formers.....		1 08 to 1 44	

*Rates of wages paid by manufacturing establishments in Germany—Cont'd.*

Occupations.	Men.	Women.	Children.
<b>Cotton hosiery—Continued.</b>	<i>Per week.</i>	<i>Per week.</i>	<i>Per week.</i>
Finishers .....		\$0 96 to \$1 20	.....
Press-hands .....	\$2 52 to \$2 88		.....
Packers .....	2 88		.....
Hands on sewing-machines .....		1 20 to 1 44	.....
(Hours of labor, 10 to 10½ per day.)			
<i>Lichtenstein, Saxony.</i>			
Yarn-spoolers .....		1 44	.....
Hands on machines .....		1 44 to 1 80	.....
Finishers .....	2 88 to 3 60	1 44 to 1 80	.....
Hands on round machines .....	2 16 to 2 52	1 44 to 1 80	.....
Hands on Paget machines .....	3 24 to 3 60	2 52	.....
Hands on edging machines .....	4 32		.....
(Hours of labor, 12 per day.)			
<i>Hartmannsdorf, Saxony.</i>			
Paget-loom makers .....	2 88 to 5 04		.....
Foreman, exclusive of free rent and fuel, .....	5 76		.....
Firemen, exclusive of free rent and fuel .....	2 88		.....
Packer .....	3 60		.....
<i>Apolda, Saxony.</i>			
<b>Manufacture of woolen hosiery :</b>			
Smooth work on round looms, according to power of machine, per zollpfund* .....	06 to 14		.....
Catching machine, round loom .....	04 to 08		.....
Chain, power-loom .....	06 to 36		.....
Articles of English yarn, up to No. 14 .....	94		.....
Articles of fine yarn, according as the pattern is more or less difficult .....	12 to 1 08		.....
Articles of, on covering machines .....	24 to 72		.....
Articles of stitching .....	36 to 1 08		.....
Articles of catching machines, (hand loom) .....	12 to 29		.....
Stocking-weavers, according to ability and kind of work .....	2 88 to 5 04		.....
Hands on machines .....		1 80 to 2 88	.....
Packers and other common laborers .....	2 16 to 2 88		.....
Sewers .....		1 44 to 2 16	.....
(Hours of labor, 10 per day.)			
<i>Limbach, Saxony.</i>			
Round-loom makers .....	2 88 to 3 60		.....
Packers .....	2 88 to 3 60	1 44 to 1 80	.....
Sewers .....		1 80 to 2 16	.....
(Hours of labor, 12 per day.)			
<i>Oberlungwitz, Saxony.</i>			
Weavers, ordinary goods .....	1 44		.....
Weavers, middling goods .....	2 10		.....
Weavers, fine goods .....	2 88		.....
Weavers, best workers .....	3 60		.....

\* Zollpfund=1.102 pound, United States.

*Rates of wages paid by manufacturing establishments in Germany—Cont'd.*

Occupations.	Men.	Women.	Children.
<i>Hohenstein, Saxony.</i>	<i>Per week.</i>	<i>Per week.</i>	<i>Per week.</i>
Weavers, average.....	\$1 80 to \$3 24	.....	.....
<i>Schönnau, Saxony.</i>			
Hands on machines .....	2 52 to 3 24	.....	.....
Finishers .....	4 32	.....	.....
Press-hands .....	3 24	.....	.....
Finishers .....	.....	\$1 20 to \$1 63	.....
(Hours of labor, 11 per day; overwork paid per hour at the same rate.)			
<i>Greiz, Saxony.</i>			
Hand-loom for merinos .....	2 42	.....	.....
Hand-loom for cashmeres .....	2 42	.....	.....
Hand-loom for reps .....	3 84	.....	.....
In very few cases only Thibets, or merinos and cashmeres, are woven upon hand-loom at this day.			
Cleaning yarn, 100 packs, (at 1,300 Leipsic ells each,) 15 cents, daily work (7½ hours) 800 packs .....	1 08	.....	.....
Spooling, for weaving, 100 packs, 18 cents, daily work (7½ hours) 800 packs .....	1 08	.....	.....
Machine-weaving:			
Every good workman attends two looms, using, per week, 1,000 packs or more of yarn, at 36 cents per 100 packs .....	3 60 to 5 76	.....	.....
Attendants at machines .....	.....	2 16 to 2 88	.....
Loom-masters .....	4 32 to 5 76	.....	.....
(Hours of labor, 11 per day.)			
<i>Reichenbach, Saxony.</i>			
Flannel-factory:			
Wool-assorters .....	.....	96	.....
Wool-washers .....	2 40	.....	.....
Attendants at carding-machines .....	.....	1 20	.....
Men at spinning-machines .....	2 28	.....	.....
Boys at spinning-machines .....	.....	.....	\$0 72 to \$0 96
Workers at hand-loom .....	2 16 to 3 60	1 44 to 1 80	.....
Fullers and finishers .....	2 16 to 2 28	.....	.....
Dyers .....	2 16	.....	.....
Nappers .....	.....	.....	1 20
Press-hands .....	2 40	.....	.....
Packers .....	.....	1 32	.....
Drying-machine hands .....	.....	1 20	.....
Workmasters .....	3 60 to 8 64	.....	.....
(Hours of labor, 11 per day.)			
<i>Gera, Saxony.</i>			
Woolen cloth:			
Finishers .....	2 88 to 3 60	.....	.....
Machine-loom weavers .....	2 16 to 4 32	.....	.....
Hand-loom weavers .....	2 88 to 4 32	.....	.....
(Hours of labor, 12 for No. 1 and 2; irregular hours for No. 3.)			

*Rates of wages paid by manufacturing establishments in Germany—Cont'd.*

Occupations.	Men.	Women.	Children.
<i>Glauchau, Saxony.</i>	<i>Per week.</i>	<i>Per week.</i>	<i>Per week.</i>
Machine-weaving:			
Weavers .....	\$1 80	\$1 66	\$1 66
Spooling .....		1 44	1 32
Shearing .....	3 94		
Putting in beams .....	3 84		1 08
Turning in .....	2 81		
(Hours of labor, 11 per day.)			
<i>Linden, Hanover.</i>			
Cotton-velvet factory:			
Weavers .....	\$3 60 to 4 32	\$2 16 to 2 88	
Day-laborers .....	2 88 to 3 60		
(Hours of labor, 60 per week.)			
<i>Soran, Lower Lusatia.</i>			
Cloth-factory:			
Wool carders and pickers .....		1 80	
Wool-spinners .....	2 16 to 3 24		
Weavers on power-loom .....	2 16		
Weavers on hand-loom .....	2 88 to 4 32		
Warpers .....	2 52		
Pressers .....	2 16 to 3 24		
Spoolers .....		1 44 to 2 14	
Firemen .....	2 88		
Machinists .....	5 04		
<i>Duren, Rhenish Prussia.</i>			
Cloth-factory:			
Wool-assorters .....	1 30 to 1 58		
Washers .....	2 88 to 3 60		
Dyers .....	2 16 to 2 60		
Carders .....	2 30 to 2 60		
Fine spinners .....	2 88 to 3 60		
Fullers .....	2 30 to 2 60		
Shearers .....	2 88 to 3 60		
Weavers .....	2 88 to 3 98		
<i>Schwiebus, Saxony.</i>			
Cloth-factory:			
Wool-assorters, (9 hours per day) .....		84	
Wool-pickers, (9 hours per day) .....		84	
Wool-shearers, (13 hours per day) .....		1 38	
Wool-pressers, (13 hours per day) .....	2 16		
Wool-dyers, (13 hours per day) .....	2 16		
Weavers, masters, (13 hours per day) .....	2 88 to 4 32		
Machinists, (13 hours per day) .....	2 16 to 2 52		
<i>Luckenwalde.</i>			
Cloth-factory:			
Dyers, males, per day, (13 hours) .....	39 to 42		
Wool-assorters, females, per day, (13 hours) .....		18 to 19	
Knotters, per piece of 30 yards .....			9.6 to 12
Chain-shearers, for 100 pieces yarn .....			9
Spinners, girls, per day, (13 hours) .....			26.4
Fine spinners, per 1,000, from 36 cents to 48 cents; per week .....	3 60 to 4 32		

*Rates of wages paid by manufacturing establishments in Germany—Cont'd.*

Occupations.	Men.	Women.	Children.
<b>Cloth-factory:</b>			
Weavers, according to work and rates	<i>Per week.</i>	<i>Per week.</i>	<i>Per week.</i>
+ Roughers, (13 hours per day,) per week	\$3 60 to \$4 32	.....	.....
Shearers, girls, (13 hours per day,) per week	1 92 to 2 04	.....	.....
Fullers, per week	3 60 to 4 32	.....	\$1 06 to \$1 32
<i>Görlitz, Silesia.</i>			
<b>Cloth-factory:</b>			
Wool-sorters	.....	\$1 14	.....
Wool washing and drying	2 40	.....	.....
Cleaners	2 64	.....	.....
Carders	.....	1 68	.....
Knotters	.....	1 20	.....
Spinners, (contract work)	3 60 to 4 32	.....	.....
Weavers	2 40 to 3 76	1 68	.....
Fullers and washers	2 40 to 2 88	.....	.....
Nappers	2 52 to 2 88	.....	.....
Shearers	2 52 to 2 88	.....	.....
Dressers	2 52	.....	.....
Dyers	2 16	.....	.....
Spongers	2 76	.....	.....
Card-setters	2 88	.....	.....
<i>Sagan, Silesia.</i>			
	<b>Master-workmen.</b>		
<b>Cloth-factories:</b>			
Spinning—	<i>Per week.</i>		
Wool-sorters	.....	\$1 26 to 1 44	.....
Washers	2 16 to 2 88	.....	.....
Warpers	1 44 to 1 68	1 14 to 1 44	.....
Carders	2 16 to 2 88	1 14 to 1 44	.....
Fine-spinners	2 88 to 3 60	1 14 to 1 44	1 14 to 1 44
Weavers	\$4 32 to 7 20	1 80 to 2 52	.....
Nappers	4 32 to 5 76	.....	.....
Fullers	4 32 to 7 00	2 16 to 2 52	.....
Finishers	.....	3 60	2 16 to 2 52
Cleaners	.....	4 32	1 44 to 1 80
Pressers	3 60	2 16 to 2 52	.....
Spongers	.....	2 16 to 2 52	.....
Fasteners	.....	2 16 to 2 58	.....
Card-setters, dyers, and heaters, from 41 cents to 48 cents per day.	.....	.....	.....
<i>Leipsic.</i>			
<b>Merchant-tailoring establishment:</b>			
Making waistcoat, 72 cents to \$1.08.	4 32 to 5 04	.....	.....
Making pantaloons, 84 cents to \$1.08.	4 32 to 5 04	.....	.....
Making coat, \$3.60.	.....	.....	.....
Making frock-coat, \$4.32.	.....	.....	.....
Repairing, per hour, 7½ cents.	.....	.....	.....

*Rates of wages paid by manufacturing establishments in Germany—Cont'd.*

Occupations.	Men.	Women.	Children.
<b>DÜLKERN, PRUSSIA.</b>			
Weavers.....	\$3 24 to \$5 04	.....	.....
Warppers.....	2 16 to 2 58	\$2 16 to \$2 88	.....
Spoolers.....	.....	.....	\$1 44 to \$1 80
Dressers.....	3 24 to 4 32	.....	.....
<b>PIRNA, SAXONY.</b>			
Weavers.....	2 88 to 4 32	.....	.....
Spoolers.....	.....	2 16 to 2 52	.....
<b>PETERSWALDE, BOHEMIA.</b>			
Weavers.....	3 06 to 4 14	.....	.....
Spoolers.....	.....	1 98 to 2 34	.....

**CLOTH-FACTORIES, GROSSENHAIN, SAXONY.**

Wool-assorters, per day, 38.4, 43.2, and 48 cents; wool-dyers, per day, 36 cents; overwork per hour, 2.6 cents. Spinners: from 1½ to 3 hanks per pound, per 100 hanks, 29 cents; from 3½ to 6 hanks per pound, per 100 hanks, 21.6 cents; from 6½ to 2 hanks per pound, per 100 hanks, 24 cents; cleaners per hour, 2.6 cents; warppers per day, 25.2 cents; overwork, per hour, 2.6 cents; carders (girls) per hour, 1.6 cents; spinners (boys) per day, 12 cents.

Satin-faced-cloth weavers—machine looms: 5,000 threads per hank, 1.2 cents; 6,000 threads per hank, 1.4 cents; 7,000 threads per hank, 1.6 cents; 8,000 threads per hank, 1.8 to 2 cents; crossweaving 5,000 threads per hank, 1 cent; 6,000 threads per hank, 1.2 cents; 7,000 threads per hank, 1 cent. White-cloth weavers, per hank, ½ cent; colored-cloth weavers, per hank, ¼ cent.

Fullers, carders, shearers, hands at the press: Fullers per day, 31.2 to 33.6 cents, for over-hours, 2.6 to 2.8 cents; card-fitters per day, 30 cents; over-hours, 2.6 cents; hands on machine, per week, \$3.24.

Wages of foremen vary greatly, according to ability.

*Cloth factory of Schwiebus, Saxony.*

	Males.	Females.
Washers.....	\$1 32	.....
Dyers and spongers.....	2 16	.....
Pressman.....	2 16	.....
Machinist.....	2 52	.....
Fireman.....	2 16	.....
Fullers, (13 hours per day).....	\$1 80 to 2 04	.....
Wool-whelpers, (13 hours per day).....	1 92	.....
Wool sorters and pickers, (9 hours).....	.....	\$0 84
Wool washers and dryers.....	.....	84
Wool-carders.....	.....	1 50
On self-actors.....	.....	1 38
Shearers, (13 hours).....	.....	1 08
Nappers.....	.....	84
Chain spoolers, (females,) per chain of 120 meters (min. 130 yards).....	10 cents.	.....
Chain shearers, (females,) per chain of 120 meters.....	12 cents.	.....
Chain glners, (males,) per chain of 120 meters.....	12 cents.	.....
Power-loom weavers, (females,) per 24 meters.....	48 cents.	.....

The overseers of the various factory branches receive, for six working-days, from \$2.88 to \$4.32.

## FRINGE-MAKING—SCHLETTAU, SAXONY.

The Messrs. Greifenhagen & Co. having their manufacturing done at the homes of the operatives, pay them by the piece and not by the day. For the manufacture of every article several kinds of work-people are required. Therefore, if the skilled laborer will obtain proportionate wages, several must work together in preparing and finishing one and the same design or piece, as for gimps, loops, cloak-trimmings, ornaments, &c.

The lowest wages are paid to those who stitch the design to the prepared paper, viz,  $\frac{1}{2}$  cents to  $1\frac{1}{2}$  cents per hour, while those who take off such design earn from  $1\frac{1}{2}$  to  $1\frac{3}{4}$  cents per hour. For finer and more complicated designs, from  $\frac{1}{2}$  to  $\frac{3}{4}$  of a cent additional are demanded. While there are laborers of more or less skill, the average earnings for ten working-hours are: for adults, from 16.8 to 28.8 cents; and for children from 9.6 to 11.4 cents.

When business is brisk and labor scarce, much higher wages are paid for these articles, which are nearly altogether manufactured at the houses of villagers.

It has been found impracticable to fabricate these articles in factories, where regular wages could be paid, for two reasons: First, the articles being dependent upon fashion, the demand for them is very irregular; and secondly, few skilled women could be induced to work at establishments to the neglect of their domestic duties.

Weavers of fringes, gimps, &c., are also paid by the piece or meter, and earn, according to skill and industry, from \$1.44 to \$2 per week, of ten hours per day.

The preparatory and incidental labor, which is chiefly manual, is paid at from  $1\frac{1}{2}$  to 2 cents per hour.

Makers of hand and loom curtain-band holders, having become greatly reduced in number on account of the previously very low wages, now command from \$2.16 to \$2.88 per week.

The manufacture of this article also requires much preparatory and incidental labor, for which from \$1.08 to \$2.16 is paid per week, of ten hours per day.

The lowest wages, viz,  $\frac{2}{3}$  to  $\frac{3}{4}$  cents per hour of persevering labor, is paid for the twisting of the bullion fringes, usually performed by children or other unskilled persons.

Occupations.	Men.	Women.	Children.
<b>Linena, table-linen, Gross Schönnau, Saxony:</b>	<i>Per week.</i>	<i>Per week.</i>	<i>Per week.</i>
Weaver, narrow goods.....	\$1 08 to \$3 24	.....	.....
Weaver, wide goods.....	1 80 to 4 32	.....	.....
(Working hours, 12 per day.)			
Bleachers.....	.....	\$1 44 to \$2 16	.....
(Working hours, 12 to 15 per day.)			
Manglers.....	.....	1 44 to 2 16	.....
Dressers.....	1 44 to 2 16	.....	.....
(Hours of labor, 12 per day.)			
<b>Walbersdorf, Saxony:</b>			
Weavers, narrow goods.....	1 00 to 2 40	.....	.....
Weavers, wide goods.....	1 44 to 3 60	.....	.....
Bleachers.....	.....	1 25 to 1 60	.....
Manglers.....	.....	1 80 to 1 68	.....
Dressers.....	1 15 to 1 68	.....	.....
(Hours of labor, 12 per day.)			



Occupations.	Men.	Women.	Children.
<b>Fancy ticking, Gross Schönanau, Saxony:</b>	<i>Per week.</i>	<i>Per week.</i>	<i>Per week.</i>
Weavers.....	\$1 44 to \$1 80	.....	.....
Spoolers.....	.....	\$96 to \$1 08	.....
Treaders.....	96 to 1 08	.....	.....
Dyers.....	1 80 to 2 16	.....	.....
Dressers.....	1 68 to 2 16	.....	.....
Overseer, dyeing department..	3 60 to 3 94	.....	.....
Overseer, dressing department.	2 88 to 3 24	.....	.....
(Hours of labor, 12 per day.)			
<b>Striped drill, Sebritz, Saxony:</b>			
Weavers, on power-loom.....	2 16 to 2 88	2 16 to 2 88	.....
Spoolers.....	.....	1 08 to 1 44	.....
Treaders.....	1 08 to 1 44	.....	.....
Overseer.....	3 60 to 4 32	.....	.....
(Hours of labor, 11 per day.)			
<b>Jacquards, Oberlangenbielau, Silesia:</b>			
Weavers, mechanical.....	2 52 to 2 88	.....	.....
(Working hours, 12 per day.)			
Weavers, hand.....	1 44 to 3 60	.....	.....
Spoolers.....	.....	72 to 1 08	.....
Dressers.....	2 16 to 2 88	.....	.....
(Hours of labor, 15 per day.)			
<b>Carpets, Schmiedeberg, Silesia:</b>			
Spinners.....	2 88	1 44	.....
Dyers.....	1 92	.....	.....
Weavers, on hand-loom.....	2 16 to 2 88	.....	.....
Weavers, on power-loom.....	1 44 to 1 80	.....	.....
Knotters.....	.....	1 44 to 2 16	.....
(Hours of labor, 12 per day.)			
<b>Leather goods, Freiberg, Saxony:</b>			
Pocketbook-makers.....	2 52 to 5 76	.....	.....
Cabinet-makers.....	2 88 to 4 32	.....	.....
Steel-workers.....	2 64 to 5 04	.....	.....
Harness-makers.....	3 24 to 3 60	.....	.....
Polishers.....	2 88 to 4 68	1 44 to 1 56	.....
Day laborers.....	96 to 1 68	.....	.....
(Hours of labor, 11 per day.)			
<b>Leather goods, Offenbach-on-the-Main:</b>			
Pocketbook-makers.....	3 60 to 7 20	.....	.....
Book-binders.....	3 60 to 5 04	.....	.....
Girdlers.....	3 60 to 5 04	.....	.....
Steel-workers.....	3 96 to 5 04	.....	.....
Steel-polisher.....	3 96 to 4 86	.....	.....
(6 days of 11 hours each.)			
<b>Oil-cloths, Crefeld, Prussia:</b>			
Printers.....	5 40	.....	.....
Blackeners.....	3 60 to 5 04	.....	.....
Day laborers.....	3 36	3 36	.....
(6 days of 12 to 13 hours each.)			
<b>Glass beads, Bayreuth, Bavaria:</b>			
Women and children.....	.....	1 62 to 1 80	\$0 60 to \$1 08
Families with many children earn 2.40 to 2.88.			
(6 days of 11 hours each.)			

## PAPER-MILL, BAUTZEN, SAXONY.

Machinists, \$4.68; paper-cutters, \$3.60; grinders, \$3.24; firemen, \$3.12; rag-cutters, \$2.88; bleachers, \$2.88; laborers, \$2.16 to \$2.52; packers, \$3.12. Children: Assorters of rags; \$1.44; assorters of papers, \$1.44. Hours of labor, 84, per week.

## GOLD AND SILVER FRINGES, LACES, ETC., FREIBERG, SAXONY.

Goldsmiths, per week, \$1.80 to \$2.76; 12 hours per day. Wire-drawers, per week, \$2.88 to \$5.76; work at home. Fringe-makers, per week, \$2.64 to \$3.60; work at home. Spinners and embroiderers, (girls,) 72 cents to \$1.44; 12 hours per day. Lace-makers, (women,) 25 cents to 84 cents; work at home.

## MACHINE-SHOP, SACHSENHAUSEN.

	Per week.	Piecework.
Machine-locksmiths.....	\$3 24	\$6 48
Building-locksmiths.....	3 24	6 48
Turners in iron.....	3 24	6 48
Turners in brass.....	3 24	6 48
Turners in wood.....	3 24	4 86
Tinmen.....	3 24	5 67
Iron-founders.....	3 24	4 86
Joiners.....	3 24	4 86
	Per month.	
Engineers.....	\$24 30	to \$28 35
Master-workmen.....	32 40	to 40 50
Master-fitter.....	20 25	to 28 35
Foreman.....	40 50	to 48 60

## CHIEF MANUFACTURING TOWNS OF GERMANY.

Having in the preceding pages presented statements showing the rates of wages paid for factory-labor in many of the smaller manufacturing towns of Prussia and Saxony, classified by industries, it is now proposed to continue to give similar statements, classified by towns, selecting such as are engaged in the fabrication of articles which, to a considerable extent, find a market in the United States.

## BARMEN AND ELBERFELD.

These towns are in fact but one, there being no natural boundary between them, and the stranger who passes along the principal street of this seat of industrial activity is unable to discover where the one terminates and the other commences. The United States consulate being in Barmen, the consular district bears that name.

## EXPORTS TO THE UNITED STATES.

The following statement, furnished by Mr. Consul Hoechster, will show the kind as well as the value of goods which find a market in this country in a single year:

*Statistical statement showing the description and value of merchandise exported to the United States from the consular district of Barmen during the year ended September 30, 1873.*

Cotton goods, (braids, trimmings, galloons, &c.).....	\$571, 155
Cotton and half-silk ribbons and hat-bands.....	724, 081
Manufactures of wool and of cotton and wool mixed.....	831, 739
Dress and piece goods of silk, half-silk, satins, taffetas.....	156, 576
Velvets and velvet ribbons.....	214, 508
Buttons and button-stuffs.....	118, 737
Woolen cloth.....	701, 489
Steel, iron, brass, and hardware and cutlery.....	522, 066
Dyes and chemicals.....	136, 102
Miscellaneous.....	97, 414

Total ..... 4, 073, 867

## Shipped by way of—

Bremen.....	\$2, 984, 255
Hamburg.....	728, 603
Antwerp.....	170, 779
Rotterdam.....	160, 391
Liverpool and London.....	22, 763
Havre.....	7, 076

Total ..... 4, 073, 867

## WAGES IN MANUFACTURING ESTABLISHMENTS.

The following statements show the weekly earnings of operatives employed in various industries in the consular district of Barmen, Prussia:

Occupations.	Men.	Women.	Children.
Silk and ribbons, Barmen.....	\$3 96 to \$4 32	\$2 52 to \$2 88	\$1 68 to \$1 80
Ribbon and silk weavers having their own looms.....	7 20 to 10 08	.....	.....
Hours of labor, 10 per day.			
Cotton-braids and trimmings, 10 hours per day.....	3 60 to 4 32	2 16 to 2 88	1 44 to 1 80
If they work by the piece the average weekly earnings are....	5 76 to 8 64	.....	.....
Fancy dress-buttons, weavers, 10 hours per day.....	3 60 to 7 20	2 16 to 4 32	.....
Half-silk goods, (Elberfeld:)			
Weavers of grenadines, satins, &c.	3 96 to 4 14	2 64 to 2 88	1 68 to 1 80
Furniture stuffs, (Elberfeld:)			
Weavers of worsted damask.....	4 58 to 5 04	.....	.....
Weavers of silk damask.....	5 40 to 5 76	.....	.....
Weavers of worsted brocade.....	6 48	.....	.....

## Woolen mills, Barmen, average weekly wages for 11 hours of labor.

Occupations.	Men.	Women.	Children.
Wool-sorters .....	\$2 88	.....	.....
Wool-washers.....	3 60	.....	.....
Wool-dyers .....	2 52	.....	.....
Overseers.....	4 32	.....	.....
Pickers.....	.....	\$1 80	.....
Carders.....	.....	2 04	.....
Spinners.....	\$3 60 to 3 96	.....	.....
Warpers and beamers.....	4 08 to 4 32	.....	.....
Reelers.....	.....	.....	\$1 98
Overseers.....	4 68 to 7 20	.....	.....
Assistants.....	3 24 to 3 60	.....	.....
Weavers.....	3 60 to 3 96	.....	.....
Burlers.....	1 92 to 2 16	\$1 92 to 2 16	.....
Overseers.....	4 32 to 4 68	.....	.....
Fullers.....	2 52	.....	.....
Dressers or giggers.....	3 36	.....	.....
Finishers.....	2 52	.....	.....
Press-tenders.....	2 52	.....	.....
Drawers.....	2 83	.....	.....
Brushers.....	.....	.....	2 04
Packers.....	2 88	.....	.....
Overseers.....	4 68 to 6 48	.....	.....
Assistants.....	3 60 to 3 96	.....	.....
Engineers.....	3 96	.....	.....
Mechanics.....	2 52	.....	.....
Laborers.....	2 52	.....	.....
Foreman.....	4 68	.....	.....

## ROLLING-MILLS.

Forge-masters.....	\$10 80
Assistants.....	6 48
Foremen of strikers.....	5 40
Strikers.....	4 32

Puddle-masters.....	\$8 64 to \$9 36
Puddlers.....	5 40
Workmen for blooming and looping.....	6 48
Looping-rollers.....	8 64
Preparatory rollers.....	5 76
Rollers.....	5 04
Drawers and stretchers.....	4 32
Welders.....	12 96
Assistants.....	7 20
Foremen of finishing rollers.....	10 80
Assistants.....	5 76 to 7 20
Hammer-smiths.....	8 64
Assistants.....	5 40
Turners and blacksmiths.....	8 64
Machinists.....	5 76
Laborers and firemen.....	4 32

Hours of labor, 12 per day.

NOTE.—The cost of puddling iron is 75 cents per 10 centner = 1102.3 pounds; of steel, 84 cents per 10 centner.

The coal is about fifteen English miles distant, and costs \$4.14 per centner; the ore is from 8 to 10 miles off.

## IRON-FOUNDERIES AND MACHINE-SHOPS.

	Per week.
Iron-molders.....	\$7 20 to \$8 64
Machinists, best.....	7 20 to 8 64
Machinists, ordinary.....	5 04 to 6 48
Helpers.....	4 32
Riveters.....	5 76 to 6 48
Helpers.....	4 32 to 5 04
Flangers.....	5 76 to 6 48
Helpers.....	4 32 to 5 04
Blacksmiths.....	5 76 to 8 64
Helpers.....	4 32 to 5 04
Pattern-makers and carpenters.....	5 40 to 6 12
Turners.....	5 04 to 8 64
Fitters.....	4 32 to 5 76
Laborers.....	4 32

Hours of labor, 12 per day.

## FACTORY-LABOR IN 1867.

The following valuable and interesting information in regard to the rates of wages in the factories and industrial establishments of Barmen was collected and drawn up with evident practical knowledge by a resident manufacturer, and embodied in a statistical report, published by order of the town council of Barmen. Although the rates of wages in 1867 were much lower than they have been since the war, yet, as they are given in great detail, are presented here:

*Statement showing the rates of weekly wages in the town of Barmen during the year 1867.*

Trades.	Classification of workmen.	Weekly wages.	Hours of work per day.
Turkey-red yarn-dyers.....	Journeymen.....	\$3 24	11
	Workwomen.....	1 80	11
Color-dyers.....	Journeymen.....	3 60	11
	Workwomen.....	\$1 89 to 2 16	11
Dressing and finishing works.....	Dressers.....	5 04	11
	Assistants.....	2 88	11
	Apprentices.....	2 16	11
Staff-printing works.....	Journeymen.....	3 12	11 to 11½
	Apprentices.....	1 62	11 to 11½
Piece-dyers.....	Workmen.....	3 12	11
Bleaching works.....	Journeymen.....	3 24	11 to 11½
	Apprentices.....	1 62	11 to 11½

Statement showing the rates of weekly wages in the town of Barmen, &c.—Continued.

Trades.	Classification of workmen.	Weekly wages.	Hours of work per day.
Knitting-yarn and sewing-thread .....	Workmen, (at piecework) .....	\$4 38	11
	Workmen .....	3 84	11
	Workwomen, (at piecework) ..	3 16	11
	Workwomen .....	1 80	11
	Boys .....	1 80	11
Silk-goods manufactory .....	Jacquard-workers, (piecework) ..	\$2 88 to 4 32	Uncertain.
	Treadle-workers, (piecework) ..	1 44 to 2 88	
Zanalla textile fabrics .....	Workwomen, (piecework) .....	2 16	11 to 11½
	Workmen .....	3 60	11 to 11½
Lastings, textile .....	do .....	2 88	11
	Workwomen .....	2 52	11
	Girls .....	2 16	11
Cotton-mill .....	Weavers, (piecework) .....	2 40 to 3 72	12
Silk and woolen ribbon, cord, and hcard manuf- actures.	Master ribbon-weavers:		
	Common sorts, (piecework) ..	5 76	
	Better sorts, (piecework) ..	8 64	
	Workmen .....	2 52 to 3 60	13
Silk and woolen ribbon and cord manufac- turers.	Female reel-workers .....	2 52	13
	Workmen .....	2 16 to 2 88	10½
	Workwomen .....	1 80 to 2 16	10½
	Tape-weaver, with his own loom, (piecework) .....	3 96	12
	Boys .....	72 to 1 44	(*)
India-rubber manufactories .....	Power-loom weavers:		
	Journeymen .....	3 48	10½
	Journeymen, (piecework) ..	3 60 to 7 92	10½
	Winders:		
	Men, (piecework) .....	2 52 to 3 06	10½
	Women, (piecework) .....	2 16	10½
	Boys, (piecework) .....	1 80 to 2 16	(*)
	Factory-hands:		
	In binding-room .....	2 88 to 4 32	10½
	In cutting-room .....	2 16 to 3 24	10½
	Reel-workers, women .....	2 16	10½
	Out-workers .....	5 76 to 11 52	10½
	Hand-winders .....	1 08 to 1 60	10½
	Machine-winders .....	1 44 to 2 88	10½
Soap and candle manufactories .....	Workmen .....	2 88	11
	Workwomen .....	1 68	11
Chemical works .....	At the reverberating-furnace ..	4 80	10½
	At the pyrites-furnace .....	3 96	10½
	At other processes .....	3 42 to 3 96	10½
	Handicraftsmen .....	3 60 to 3 96	10½
	Drivers .....	3 24	10½
	Helpers .....	3 06	10½
Iron, steel, and hardware manufactories .....	Smiths .....	2 88 to 3 60	11
	Average workmen .....	2 88	11
	Apprentices .....	1 08 to 2 16	11
Iron-foundries .....	Molders .....	3 60	11
	Journeymen .....	2 64	11
Boiler and machine makers .....	Turners .....	3 60	12
	Boiler-makers .....	3 60	12
	Smiths .....	4 32	12
	Hammerers .....	3 24	12
	Apprentices .....	1 80 to 2 52	12
Percussion-cap manufactories .....	Workmen .....	3 96	10½
	Workwomen .....	1 96	10½
Button-manufactories .....	Boys and girls, (piecework) ..	72 to 1 08	(*)
	Boys and girls from 17 to 20 years of age, (piecework) ..	1 44 to 2 04	11
	Cutters, (piecework) .....	2 40 to 3 12	11
	Stampers, polishers, &c., (piece- work) .....	3 24 to 4 32	11
	Turners, (piecework) .....	4 32 to 5 76	
Plating-works .....	Boys and girls .....	1 56	(*)
	Workmen .....	3 84	
Whip-manufactories .....	Boys and girls .....	1 58	(*)
	Workmen .....	2 70	11
Piano-manufactory and organ-building .....	Piano-forte makers .....	4 04	
	Organ-builders .....	4 20	
	Other workmen .....	3 60	
Lithographic establishments .....	Workmen .....	3 60	10½
Letter-press printing-offices .....	Type-setters .....	4 72	10
	Printers .....	2 88	10
Bookbinding .....	Workmen .....	2 88	11½
Masons, builders, brickmakers, plasterers ..	Journeymen masons .....	3 48	12
	Assistants .....	2 52	12
	Carpenters .....	3 48	12
	Well-makers, (piecework) ..	3 60	12

\* As regards boys and girls, or "juvenile operatives," the hours of labor are limited in conformity with the regulations laid down by the industrial code, Gewerbe-Ordning.

## MECHANICAL AND FARM LABOR IN 1873.

The daily wages of mechanics in Barmen and vicinity in the year 1873 were as follows:

Blacksmiths, bricklayers or masons, carpenters, miners, machinists, painters, tailors, tanners, and tinsmiths, 96 cents and upward; cabinet-makers and coopers from 72 cents to 84 cents; stone-cutters and wheelwrights, \$1.08; tailors receive, with board, \$1.44 per week.

Agricultural laborers, ordinary hands, receive \$86.40, and experienced hands \$108, yearly, with board.

The price of board, per week, ranged from \$2.52 to \$2.88 for workmen, and \$2.16 to \$2.52 for workwomen.

In a letter, transmitting the above statistics of labor, Mr. Consul Hoechster, under date of October 17, 1873, writes:

Since my last year's report on the same subject, there has been no change in the condition of the laboring classes in this consular district. In some instances strikes occurred during the last summer, and employers were obliged to raise the wages of their workmen about 25 per cent., especially in the hardware and cutlery trade, but owing to the dullness of business in autumn the wages went down again, and are now about the same as last year. As business gradually grew worse many of the factories were obliged to dismiss a part of their workmen. Some of them left for other places, but the greater part found employment as common laborers on street improvements, and principally on the street railways which were built this year in the cities of Barmen and Elberfeld.

## DÜSSELDORF.

This old town, more celebrated for the fine arts than for manufactures, having a school of painting and a school of architecture, exports to the United States woolen cloths and a variety of other articles, the products of the mills and factories in the neighborhood. The following table shows the value and kind of the principal articles which find a market in the United States:

*Statement showing the description and value of merchandise exported to the United States from the consular district of Düsseldorf in the year ended September 30, 1873.*

Articles.	Value.
Woolen cloths .....	\$963, 504
Hardware and cutlery .....	140, 572
Oil paintings .....	43, 693
Chromo-lithographs and engravings .....	2, 357
Artists' colors and materials .....	3, 569
Ribbons, bands, braids, and trimmings .....	24, 518
Mixed worsted and cotton goods .....	22, 365
Miscellaneous .....	15, 432
Total .....	1, 116, 003

## PRICES OF FACTORY AND OTHER LABOR.

In transmitting the following rates of wages Mr. Lewis, United States consular agent, makes the following observations in regard to the rise in the price of labor over that of former years:

MY DEAR SIR: In reply to your circular I beg to submit the following answers to your inquiries, remarking that the prices here given are exceptional and are in many instances double what they were at this time last year. That these prices will be maintained is doubtful, but it is the opinion of the owners of these works that they may somewhat recede, but not to the standard of former years. The causes have been chiefly owing to the great advance in the price of all necessities of life and also in house-rent, and the consequent rise in the price of all kinds of labor, and as this is the great question of the day here, until that question is settled on a permanent basis, these great fluctuations will continue. All the raw material is at least 50 per cent. higher than it was at this time last year, and in some articles, such as pig-iron and coal, the advance has been 100 per cent. The wages of the work-people have not, I find, advanced in the same ratio, the advance being on the average not more than 37 per cent.

## IRON FURNACES.

Cost of pig-iron per ton October, 1872 .....	\$43 20
Cost of pig-iron per ton in 1870-71 .....	21 60
Cost of coal at works, per ton, 1872 .....	4 23
Cost of coal at works, per ton, in 1870-71 .....	\$2 52 to 2 88

Daily wages of skilled workmen: Smelters, 84 cents; furnace-feeders, 72 cents; mixers or puddlers, 66 cents; coke puddlers, 60 cents; slag carriers, 68 cents; enginemen, 66 cents; firemen, 60 cents; laborers, 60 cents; smiths and fitters, 70 cents; model-makers, 77 cents; carpenters, 68 cents; masons, 96 cents; ore and limestone puddlers, 70 cents; limestone breakers, 96 cents; coke burners, 84 cents.

Hours of labor from 6 a. m. to 6 p. m., and the reverse, the labor being continued through the night. Out of this one hour is allowed for dinner and one-half hour for breakfast, and the same at 4 o'clock, making in all 10 clear hours of labor. A certain portion of the labor of these works must be carried on on Sundays as well as on week-days, and these men obtain an advance price for Sunday-work.

## ROLLING-MILLS.

Cost of pig-iron .....	\$43 20
Cost of coal at works here .....	4 60

Labor:

Puddlers, per ton, first quality .....	2 00
Puddlers, per ton, second quality .....	1 78
Puddlers, per ton, third quality .....	1 58

A good puddler, with an assistant, will make from 1½ to 1½ tons per day, and will earn, after paying his assistant, from \$1.08 to \$1.44 per day.

## IRON-FOUNDRIES AND MACHINE-SHOPS.

Machinists and turners, (best workmen) .....	\$0 96 to \$1 08 per day.
Machinists and turners, second class .....	68 to 72 per day.
Machinists and turners, inferior .....	48 to 55 per day.
Boiler-makers .....	1 44 per day.
Assistants or riveters .....	68 to 72 per day.
Helpers or laborers .....	68 per day.

## WOOLEN MANUFACTORIES.

The working hours are from 6 o'clock in the morning until 7 in the evening, with the same time for meals as in the foundries, viz: one hour for dinner, and half an hour each for breakfast, and coffee at 4 o'clock. The prices of the different kinds of labor are as follows:

Wool-sorters from 84 cents to 96 cents per day; wool-washers from 86 to 96 cents per day; girls for carding from 24 to 29 cents per day; women from 34 to 38 cents per day. Spinners generally work by the piece and earn from \$1.08 to \$1.20 per day; children from 14 to 15 years of age from 24 cents to 27 cents per day; children from 15 to 20 years of age from 41 cents to 46 cents per day.

Much of the above work is also done by the piece, and the earnings depend on the industry of the workmen.

## MECHANICAL LABOR.

Carpenters, first class, earn from \$1.08 to \$1.20 per day. Time of work from 7 in the morning to 7 in the evening, in summer; half hour allowed for breakfast and at 4 o'clock, and one hour for dinner.

Cabinet-makers, 84 cents per day. Time of labor as above. Masons from 96 cents to \$1.08 per day. Time of work in summer from 6 in the morning until 7 in the evening. In winter from 7 in the morning until dark. Work here can be carried on the greater part of the winter; the average loss of time from very cold weather, when such work cannot be done, would not be more than one month.

Ornamental plasterers .....	\$1 08 to \$1 44 per day.
Common plasterers, (or assistants) .....	72 per day.
Plasterers .....	1 08 to 1 32 per day.
House painters and grainers .....	84 to 1 06 per day.
Gas-fitters and house-smiths .....	72 to 1 20 per day.
Shoemakers, first class .....	84 to 96 per day.
Shoemakers, second class .....	72 to 84 per day.
Tailors .....	60 to 84 per day.

## AGRICULTURAL LABOR.

Laborers in this district are seldom employed by the year. When such is the case they receive from \$2.88 to \$4.32 per month, with board, and sleep on the farm where they are employed, usually over the stables. Married people are seldom or never hired in this manner; they rent or buy a small cottage and small plot of ground which they cultivate, usually keeping a goat or cow; if the latter, it is employed in plowing and hauling the little two-wheeled cart of the proprietor.

## AIX-LA-CHAPELLE, PRUSSIA.

This town, where Charlemagne was born, lived, and is entombed; where till 1558 the German emperors were crowned; where the treaties of 1668 and 1748 were held, celebrated also for its sulphur baths, is a center of Rhenish industry, among which the cloth manufacture is the most extensive. Indeed, a reference to the following statement will show that woolen cloths comprise 74 per cent. of the value of exports from this district to the United States:

*Exports from Aix-la-Chapelle to the United States during the year 1872.*

Articles.	Value.
Woolen cloth.....	\$4,038,131
Wool and lead.....	322,401
Kid gloves.....	182,258
Glass ware.....	90,161
Pins and needles.....	67,390
Miscellaneous.....	42,017
<b>Total.....</b>	<b>2,742,356</b>

## FACTORY AND MECHANICAL LABOR.

The following tables show the rates of wages paid for factory and other kinds of labor in Aix-la-Chapelle and vicinity:

## CLOTH-FACTORIES.

	Per week.
Wool-glossers.....	\$1 80 to \$2 16
Wool-assorters.....	2 16
Wool-dressers.....	1 86 to 2 16
Wool-spinners.....	3 60 to 4 32
Wool-weavers.....	3 60 to 5 76
Fullers.....	2 88
Carders.....	2 88
Wool-pickers.....	1 80 to 2 16
Shearers.....	2 88
Dyers.....	2 88
Firemen.....	4 32
Press-hands.....	2 88 to 3 60
Loom-cutter.....	2 88
Spooler.....	1 60
Gluers.....	3 60
Card-setter.....	5 40
Barbers.....	2 88
Spinners' foreman.....	5 76 to 7 20
Weavers' foreman.....	5 04 to 5 76
Carders' foreman.....	4 32 to 5 04
Spoolers' foreman.....	4 32
Fullers' foreman.....	4 32 to 5 76
Shearers' foreman.....	4 32 to 5 04
Dyers' foreman.....	5 04 to 5 76
Foremen at the press.....	4 32 to 5 04
Spinners of worsted yarns.....	4 32 to 5 04
Master weavers of worsteds.....	7 20



## MACHINE-WORKS.

	Per day.	Piece-work.
Machine-mounters .....	\$0 96	\$1 90
Adjusters .....	72	96
Turners .....	72	96
Borers .....	67	86
Clay-molders .....	72	96
Sand-molders .....	60	80
Coal-miners, at piecework .....	84	96
Coal-dumpers, at piecework .....	72	—
	Per day.	
Machinists .....		\$1 08
Blacksmiths .....		72
Locksmiths .....		96
Carpenters .....	\$0 67 to	86
Cabinet-makers .....		72
Masons .....	72 to	83
Painters .....		60
Plasterers .....		83
Shoemakers .....		72
Harness and saddle makers .....		60
Agricultural labor .....		48

## CARRIAGE-MAKERS.

	Per day.
Body-makers .....	\$0 92
Trimmers .....	1 06
Varnishers .....	72
Blacksmiths .....	66

## GLOVE-MAKERS.

Cutters .....	\$0 43
Tanners .....	72
Dyers .....	72
Workwomen .....	86
Workwomen on fine work .....	1 44
Hours of labor, 66 per week.	

## NEEDLE MANUFACTURE.

	Per week.
Whetters .....	\$6 94
Cutters .....	3 96
Blue-dyers .....	4 68
Polishers .....	3 65
Makers of sewing-machine needles .....	6 74
Hours of labor, 54 per week.	

## COLOGNE, PRUSSIA.

Although this old Roman town is now more celebrated for its cathedral, its perfumed water, and the two bridges over the Rhine—the one of boats for ordinary travel, and the other the railway bridge, a fine specimen of modern engineering—than for its industrial establishments, yet in its vicinity there are mills and factories which produce goods for the American market, as the following statement will show :

*Statement showing the exports from Cologne to the United States in the year 1872.*

Articles.	Value.
Velvets and ribbons .....	\$379,777
Lead .....	483,486
Iron, raw .....	137,973
Steel .....	143,177
Cutlery .....	79,153
Wool, manufactures of .....	65,628
Miscellaneous .....	336,356
Total .....	1,764,604

*Weekly wages of mechanics.*

Trades.	Wages.	Hours per day.
Blacksmiths .....	\$5 76	11
Carpenters .....	\$5 04 to 5 76	9
Carpenters, on piecework .....	6 48 to 7 20	.....
Coopers .....	4 32	.....
Masons .....	5 04	11
Masons, on piecework .....	6 48 to 7 20	11
Machinists, skilled workmen .....	6 48 and upwards.	11
Painters .....	4 32 to 5 76	9 to 10
Plasterers .....	5 76 to 8 64	9
Shoemakers .....	2 88 to 4 32	.....
Shoemakers, with board .....	1 44 to 2 16	.....

On piecework larger earnings are obtained. Tanners, tinsmiths, and wheelwrights, \$5.76 and upward; bakers, \$4.32 to \$8.64—12 to 13 hours.

Laborers in sugar and other factories earn from \$2.64 to \$3.60 per week—working 11 hours per day.

Women are generally paid 36 cents, and girls 24 to 28 cents per day of 10 to 11 hours.

Experienced farm-laborers per day, without board, 72 cents; ordinary farm-laborers, with board, 43 to 48 cents; common laborers, without board, 60 cents; female servants, per month, \$2.16 to \$3.60.

NOTE.—Workmen's families pay rent for one room, from \$1.44 to \$2.16 per month; and for two rooms, from \$2.88 to \$4.32. No family occupies more than two rooms.

Children are required by law to attend school until 14 years of age. School fee, 12 groschen (29 cents) per month.

There has been but little change in the rates paid for mechanical and farm labor in the district of Cologne, since the visit of the author in 1872. Mr. Hölscher, United States consular agent, transmitted the following figures expressive of the daily wages of the above classes during the year 1873:

Blacksmiths, bricklayers, or masons, carpenters, machinists, and tailors, 1½ thalers per day, (\$1.08;) stone-cutters, \$1.20; cabinet-makers, \$1.44; plasterers, \$1.80; hod-carriers, tanners, tinsmiths, and wheelwrights, 96 cents; painters, 84 cents; coopers and shoemakers, 72 cents; and miners, from 84 cents to \$1.44; farm-laborers, from 43 to 48 cents, with board, in summer; and from 34 to 38 cents in winter. Laborers, at other than farm-work, earned 60 cents per day without board.

Female servants obtained from \$2.16 to \$3.60 per month with board.

Price of board per week, from \$1.68 to \$2.52 for workmen; and \$1.44 for workwomen.

## BERLIN.

This famed capital of Prussia, and now, also, of the German Empire, affords employment to thousands of work-people in the iron, woolen, leather, and various other industries for which she is celebrated.

The manufactures which find a market in the United States are indicated in the following statement of exports from that consular district:

*Value of goods, wares, and merchandises exported to the United States from the Berlin consular district during the year ended September 30, 1873.*

Articles.	Value.
Woolen cloth and cloakings .....	\$1,202,766
Woolen shawls .....	62,631
Ready-made ladies' dresses, cloaks, woolen, &c. ....	420,559
Worsted yarn .....	41,496
Dyed worsted yarn, embroideries .....	292,312
Cotton goods .....	85,436
Linen goods .....	331,584
Silk goods .....	152,222
Basket wares .....	2,940
Manufactures of leather, wood, iron, zinc .....	962,094
Fancy paper, cards, and paper boxes .....	140,618
Books, lithographs, prints, paintings, &c. ....	234,280
Chemicals, apothecaries' utensils .....	150,179
Scientific apparatus, surgical, optical, musical .....	54,600
Leather gloves .....	105,428
Imitation jet, (ornaments of black glass) .....	65,068
Glass and porcelain wares .....	51,536
Liquors, wine, sirup, &c. ....	46,911
Lead and machinery .....	402,282
Miscellaneous goods .....	200,621
<b>Total .....</b>	<b>4,490,224</b>

\* The thaler computed at 72 cents.

### FACTORY LABOR.

The following rates of wages were paid in 1872 by the proprietors of cloth and other factories in or near Berlin :

Occupations.	Hours of labor per day.	Per week.		
		Men.	Women.	Children.
<b>Shawl-factory :</b>				
Spoolers .....	10		\$2 16 to \$2 52	
Warpers .....	10	\$4 78 to \$5 76		
Weavers on hand-loom .....	10	4 32 to 5 76		
Weavers on power-loom .....	10		2 52 to 2 88	
Washers .....	10	3 24		
Dyers .....	10	3 24		
Glazers .....	10	3 60		
Carders .....	10	2 88 to 3 24		
Fullers .....	10	3 60 to 4 32	1 80 to 2 16	
Shearers .....	10		1 80 to 2 16	
Pressers .....	10	5 04 to 5 76		
Beaters .....	10	5 76		
Burlers .....	10		2 16 to 3 24	
Laborers .....	10	2 88 to 3 24		
Fringe-makers .....	10		2 52	
<b>Ladies' cloaks :</b>				
Seamstresses, (cloaks) .....	10 to 12		2 16 to 5 04	
Seamstresses, (costumers) .....	10 to 12		1 80 to 5 76	
Cutters out .....	10 to 12	4 68 to 7 20		
Ironers .....	10 to 12		4 32	
Embroiderers .....	10 to 12		3 60 to 7 20	
<b>Fancy silk trimmings :</b>				
Makers of fringe, gimps, &c. ....	10	5 04 to 8 64	1 80 to 4 32	\$1 28 to \$1 60
Overseers .....	10	\$22 20 to 36 00		
<b>Gold and silver trimmings :</b>				
Fringe-makers .....	10 to 12	4 32 to 5 04		
Platers .....	10 to 12	4 68 to 6 48		
Wire-drawers .....	10 to 12	5 76 to 6 24		
Spinners .....	10 to 12	5 40 to 7 20		
Spinners on power-loom .....	10 to 12		1 80 to 2 52	
Hand-made goods .....	10 to 12		2 16 to 2 88	

\* Per month.

## MECHANICAL LABOR.

*Rates paid for mechanical labor in Berlin.*

Occupations.	Per day.*	Occupations.	Per day.
<b>Skilled workmen:</b>		<b>Skilled workmen—Continued.</b>	
Basket-makers .....	\$0 66	Nail-makers .....	\$0 66
Blacksmiths .....	72	Paper-makers, (fancy,) men .....	72
Brewers .....	72	Paper-makers, (fancy,) women .....	48
Carpenters .....	1 90	Piano-makers .....	90
Carvers .....	72	Ready-made garments, makers of,	
Cigar-makers, males .....	72	women .....	96
Cigar-makers, females .....	48	Roofers .....	96
Coopers .....	72	Saddlers .....	72
Coppersmiths .....	72	Salemen or clerks .....	72
Engineers, steam .....	72	Seamstresses .....	60
Factory-hands, men .....	72	Shoemakers .....	72
Factory-hands, women .....	60	Stokers .....	72
Factory-hands, children .....	36	Tailors .....	66
Glove-makers .....	72	Tanners .....	72
Joiners .....	96	Turners .....	78
Locksmiths .....	72	Weavers .....	66
Machinists .....	72	<b>Laborers:</b>	
Masons .....	1 90	In city .....	72
Millers .....	66	In country .....	60

\* Hours of labor, from 6 a. m. to 7 p. m.

## WAGES IN IRON-WORKS.

The largest and most celebrated establishment in Germany for the manufacture of all kinds of engines and machinery is that of Mr. Borsig, in Berlin. Want of time prevented a personal call at his works, which are open to the public on payment of a small fee; and it was deemed highly important to obtain the rates of weekly wages for the various kinds of skilled labor employed in the works. A request by our consul at Berlin for the desired information elicited a polite but evasive note from the proprietor,\* which was equivalent to a refusal; while an application to the Statistical Bureau of Prussia proved equally unsuccessful. But the difficulties that beset this search after knowledge served to stimulate to increased exertion, which resulted in complete success, for Mr. Kreismann shortly afterward obtained from the German Amalgamated Engineers' Society the following official statement of the wages received by the members of this union, not only in the works of Mr. Borsig, but in all other establishments of a similar character.

\* Under date of Berlin, October 22, 1873, Mr. Borsig writes:

SIR: In reply to the communication of the 18th inst., I regret to be unable to furnish the statistics desired, as, in my works, no such tables of rates of wages as the blanks inclosed call for are made up. I, therefore, return them herewith.

Respectfully,

A. BORSIG.

MR. H. KREISMANN,  
Consul of the United States of America, Berlin.

*Statement showing the average rate of wages paid, in 1873, to persons employed in the iron-foundries and machine-shops in the city of Berlin, Prussia.*

Occupations.	No. of persons.	Average weekly wages, (in United States gold coin.)
Iron-molders.....	1,800	\$7 20 to \$8 64
Machinists, best.....	500	5 76 to 7 20
Machinists, ordinary.....	1,500	4 32 to 5 76
Machinists, inferior.....	850	2 88 to 4 32
Helpers.....	900	6 48 to 7 20
Boiler-makers.....	600	4 32 to 6 48
Helpers.....	1,080	5 76 to 7 20
Riveters.....	100	4 32 to 5 76
Holders-on.....	150	7 20 to 8 64
Flangers.....	50	3 60 to 4 32
Helpers.....	400	7 20 to 8 64
Blacksmiths.....	800	3 60 to 5 04
Helpers.....	1,900	8 64 to 10 80
Foremen.....	400	5 76 to 7 20
Engineers.....	700	3 60 to 5 04
Pattern-makers and carpenters.....	900	2 88 to 4 32
Assistants.....	300	72 to 2 16
Laborers, carters, &c.....	2,000	7 20 to 10 08
Apprentices.....	200	5 76 to 6 48
Millwrights.....	300	7 20 to 8 64
Assistants.....	400	3 60 to 5 04
Brass-founders.....	150	6 48 to 8 64
Fitters.....	400	
Turners.....	500	

Hours of labor per week, 60.

Products: Locomotives, machine castings, columns, tubes, pipes, machines, steam-engines and tools, steam-boilers, pipes, agricultural machines, implements, railroad-cars.

RUD. RAUSCH,

*Secretary of the Berlin branch of the German Amalgamated Engineers' Society.*

BERLIN, November 15, 1873.

The value of the foregoing table is enhanced by the fact that of the 16,800 employés whose weekly earnings are therein given, the number engaged in each of the various subdivisions of labor is stated, thus affording data for an accurate computation of the average earnings of skilled and of unskilled laborers engaged in the various iron-works of Berlin.

The average weekly wages of the 10,100 skilled workmen is \$6.88; of the 4,500 helpers and assistants, \$4.38; of the laborers and carters, \$3.60; and of the 200 apprentices, \$1.44—computed in United States gold coin.

#### BUILDING-TRADES.

The influx of material wealth, after the termination of the war with France, gave a marked impetus to new enterprises, largely advanced the price of real estate, and induced the erection of a large number of buildings in Berlin.

Real estate advanced as rapidly, and changed hands as frequently, as in some of our western cities in previous years. The owner of a corner property in the celebrated Unter der Linden, not far from the Brandenburg gate, was, at one time, offered only 100,000 thalers, which he was advised to refuse, but in a few months afterward he obtained upwards of 200,000 thalers.

The activity in the building-trades caused a great demand for skilled labor which rapidly advanced in price, reaching figures previously unknown in Germany.\*

\* Since the above was written the price of real estate has declined, the demand for skilled labor has been less active, and the rates of wages have, consequently, been reduced.

The following tables show the rates existing in Berlin during the eight months ending with the month of August, 1874:

## WAGES OF MASONS AND CARPENTERS IN BERLIN IN 1874.

*Statement showing the number of men actually employed by the Association of Master Masons, Carpenters, and Builders, with prices paid per day of ten hours.\**

## MASONS—MASTER WORKMEN.

Month.	\$1.02.	\$1.08.	\$1.14.	\$1.20.	\$1.26.	\$1.32.	\$1.38.	\$1.44.	\$1.50.	\$1.56.	\$1.62.	\$1.68.	\$1.80.
January.....	1	2	4	15	11	28	21	64	21	14	7	26	28
February.....		2	2	14	12	31	19	79	13	23	10	19	30
March.....		1	5	28	17	33	15	98	13	16	6	90	16
April.....				55	20	55	14	108	12	14	5	20	14
May.....			5	34	18	46	14	119	10	15	5	25	16
June.....				41	17	49	14	117	11	16	4	23	19
July.....				38	23	46	11	113	7	21	7	21	18
August.....				35	26	44	12	108	4	22	7	29	15

## PERCENTAGE OF MASTER MASONS EMPLOYED AT EACH OF ABOVE RATES.

January.....	0.42	0.83	1.64	6.20	4.35	11.57	8.67	26.45	8.67	5.78	2.89	10.74	11.58
February.....		0.79	0.79	5.50	4.73	12.20	7.48	31.10	5.12	9.06	3.94	7.48	11.81
March.....			0.37	1.49	10.44	6.34	12.30	36.52	4.85	6.40	2.24	7.45	6.40
April.....				17.35	6.32	17.35	4.42	34.07	3.75	4.42	1.58	6.32	4.42
May.....			1.65	11.22	6.60	15.51	4.62	36.97	3.30	4.95	1.65	8.25	5.28
June.....				12.49	5.59	13.81	4.61	38.49	3.62	5.26	1.31	7.57	6.25
July.....				12.46	7.54	15.08	3.61	37.05	2.29	6.89	2.29	6.89	5.90
August.....				11.59	8.61	14.57	3.98	35.74	1.33	7.29	2.29	9.60	4.07

## CARPENTERS—MASTER WORKMEN.

January.....			8	26	25	25	5	32	5	10	3	12	11
February.....			8	24	19	25	9	32	4	10	3	11	11
March.....			8	25	23	26	9	39	4	11	4	7	8
April.....					37	46	14	43	8	8	1	6	9
May.....		3	11	27	33	29	9	44	3	12	3	8	8
June.....				36	33	30	7	49	3	10	2	7	10
July.....			8	29	26	21	13	46	2	13	2	8	8
August.....			3	43	27	23	8	50	3	13	2	6	10

## PERCENTAGE OF MASTER CARPENTERS EMPLOYED AT EACH OF ABOVE RATES.

January.....			4.84	16.04	15.49	15.49	3.09	12.75	3.09	6.17	1.85	7.40	6.79
February.....			5.12	15.38	12.11	16.12	5.77	20.51	2.56	6.41	1.92	7.05	7.05
March.....			4.48	15.24	14.02	15.85	5.49	23.78	2.44	6.71	2.44	4.27	4.88
April.....					21.51	26.74	8.14	25.00	4.66	4.66	0.58	3.40	5.22
May.....		1.58	5.79	14.22	17.37	15.26	4.74	23.16	1.58	6.32	1.58	4.20	4.20
June.....				19.22	17.65	16.04	3.74	26.21	1.61	5.35	1.08	3.75	5.35
July.....			4.55	16.48	14.78	11.93	7.38	26.13	1.13	7.39	1.13	4.55	4.55
August.....			1.60	22.87	14.36	12.23	4.25	26.60	1.60	6.91	1.07	3.19	5.39

## JOURNEYMEN MASONS.

Month.	Und'r \$0.96.	\$0.96.	\$1.02.	\$1.08.	\$1.14.	\$1.20.	\$1.26.	\$1.32.	\$1.38.	\$1.44.	\$1.50.	\$1.56.*
January.....		45	124	432	611	250	14	10	5	1	1	
February.....		45	164	492	648	140	15	13	4			2
March.....	34	90	438	1,054	262	83	10	5	8			
April.....	3	163	414	1,711	232	30						
May.....	2	11	141	1,965	334	84	7	6		3		
June.....		14	73	1,917	769	139	12	6				
July.....	1	16	49	1,709	1,094	167	14	6	1	8		
August.....		16	46	1,560	1,112	136	7	3	1	10		

\* In the original tables the prices are stated by the hour at one-tenth of the rates in the above statements. For a working day of nine hours, as in England, the respective rates would be: .918, .972, 1.026, 1.08, 1.134, 1.188, 1.242, 1.296, 1.35, 1.36, 1.458, 1.512, and 1.62 per day.

Statement showing the number of men actually employed, &c.—Continued.

PERCENTAGE OF JOURNEYMEN MASONS EMPLOYED AT EACH OF ABOVE RATES.

January .....	.....	3.01	8.31	28.93	40.99	16.74	0.95	0.68	0.34	0.06	0.06	.....
February .....	.....	2.98	10.77	32.30	42.54	9.19	0.99	0.85	0.28	.....	.....	0.12
March .....	1.73	4.58	22.35	32.64	13.34	4.92	0.50	0.25	0.40	.....	.....	.....
April .....	0.08	6.34	16.10	66.59	9.79	1.17	.....	.....	.....	.....	.....	.....
May .....	0.08	0.42	5.50	77.07	13.05	3.23	0.27	0.22	.....	0.11	.....	.....
June .....	.....	0.42	2.49	65.43	24.25	4.75	0.40	0.20	.....	.....	.....	.....
July .....	0.03	0.52	1.60	55.79	35.69	5.44	0.45	0.19	0.03	0.26	.....	.....
August .....	.....	0.57	1.63	54.11	38.19	4.76	0.25	0.11	0.03	0.35	.....	.....

JOURNEYMEN CARPENTERS.

January .....	.....	31	165	421	429	173	54	23	7	2	3	1
February .....	.....	77	127	380	339	169	67	32	8	2	3	.....
March .....	9	50	173	422	359	179	54	18	7	2	3	.....
April .....	7	36	169	582	430	232	34	.....	10	.....	.....	.....
May .....	2	35	131	639	419	203	30	25	.....	2	.....	.....
June .....	.....	18	116	747	457	186	39	21	2	3	.....	1
July .....	1	9	75	841	504	215	48	26	3	5	.....	.....
August .....	.....	10	68	900	539	186	47	21	3	3	.....	.....

PERCENTAGE OF JOURNEYMEN CARPENTERS EMPLOYED AT EACH OF ABOVE RATES.

January .....	.....	2.37	12.60	32.26	32.77	13.22	4.12	1.68	0.54	0.15	0.22	0.07
February .....	.....	6.39	10.35	31.56	32.17	14.03	5.56	2.66	0.66	0.17	0.25	.....
March .....	0.70	3.99	13.56	33.06	28.19	14.03	4.23	1.40	0.54	0.14	0.23	.....
April .....	0.47	2.42	11.34	39.07	28.85	15.57	2.28	.....	.....	.....	.....	.....
May .....	0.13	2.34	8.74	42.66	27.50	13.55	2.61	1.67	0.67	0.13	.....	.....
June .....	.....	1.16	7.40	46.21	29.60	12.00	2.50	1.35	0.12	0.19	.....	0.07
July .....	0.06	0.52	4.35	48.69	29.18	12.45	2.78	1.51	0.17	0.29	.....	.....
August .....	.....	0.56	6.83	50.64	30.33	10.47	2.65	1.18	0.17	0.17	.....	.....

RECAPITULATION.

Month.	MASTER WORKMEN.					
	MASONS.			CARPENTERS.		
	Number employed.	Total daily wages.	Average wages per day.	Number employed.	Total daily wages.	Average wages per day.
January .....	242	\$285 12	\$1 17.8	162	\$186 72	\$1 11.5
February .....	254	326 96	1 32.6	156	196 56	1 26.0
March .....	258	376 56	1 45.9	164	226 80	1 38.3
April .....	317	428 24	1 34.4	172	241 92	1 40.6
May .....	303	430 56	1 42.1	190	250 20	1 32.4
June .....	304	434 16	1 42.8	187	254 88	1 36.3
July .....	305	435 60	1 42.8	176	248 64	1 37.8
August .....	302	432 00	1 43.2	188	258 48	1 37.5

JOURNEYMEN.						
January .....	1,493	\$1,337 04	\$0 89.5	1,309	\$1,172 88	\$0 89.6
February .....	1,523	1,524 24	1 06.0	1,204	1,213 20	1 00.7
March .....	1,964	1,673 28	85.2	1,276	1,421 28	1 11.4
April .....	2,572	2,751 84	1 06.9	1,490	1,654 56	1 11.0
May .....	2,559	2,804 40	1 09.6	1,498	1,667 32	1 11.3
June .....	2,930	3,011 04	1 02.7	1,590	1,774 80	1 11.6
July .....	3,045	3,397 68	1 10.8	1,737	1,933 96	1 11.9
August .....	2,891	3,207 60	1 10.9	1,777	1,968 88	1 11.3

## CHEMNITZ, SAXONY.

The town of Chemnitz is situated in the most extensive manufacturing district of Germany, fully three-fourths of the inhabitants of which may be classed as work-people. The extent and value of the imports into the United States from that district are shown by the following table:

*Statement showing the value of exports to the United States from the consular district of Chemnitz during the two years ending September 30, 1873 and 1874.*

Articles.	Value.	
	1873.	1874.
Cotton hosiery .....	\$2,622,763	\$1,807,957
Damasks .....	41,674	25,975
Dress-goods .....	10,328	55,307
Dress-trimmings .....	353,335	126,486
Embroideries .....	104,279	74,139
Fancy goods .....	23,384	60,106
Gloves .....	455,666	549,603
Laces, (cotton and silk) .....	190,227	265,093
Musical instruments .....	144,783	51,906
Miscellaneous .....	12,637	21,625
Toys .....	47,880	29,163
Woolen shawls and yarn .....	9,454	6,243
<b>Total .....</b>	<b>4,015,009</b>	<b>3,073,521</b>

## MECHANICAL AND FACTORY LABOR.

Before presenting the rates of factory labor obtained during a visit to this enterprising district in 1872, the following statements of the earnings of mechanics, factory hands, and others in preceding years are given. They were obtained in the respective years indicated, and published in the reports of the Chamber of Commerce of Chemnitz:

*Table showing the average weekly rates paid for labor in the district of Chemnitz, Saxony, in the respective years 1860, and from 1864 to 1868, inclusive.*

Trades.	Males.						Females.					
	1860.	1864.	1865.	1866.	1867.	1868.	1860.	1864.	1865.	1866.	1867.	1868.
Accordeon-makers .....	\$2 16	\$3 60	\$2 52	\$2 52	\$2 52	\$2 52	\$1 08	\$1 08	\$0 96	\$0 96	\$0 96	\$0 96
Artificial-flower makers .....			2 40	2 40	2 52	2 52		1 08	0 87	0 87	0 87	0 87
Bakers .....	1 08	1 44	2 16	2 16	2 52	2 88						
Barbers .....	1 17	72	48	48	1 44	1 44						
Basket-makers .....	1 80	2 52	1 92	1 92	2 16	2 16						
Barrel-makers .....			3 60	3 60	3 60	3 60						
Beer-brewers .....	3 24	3 60	2 16	2 88	2 88	3 24						
Belt-makers, workers in bronze .....	1 08	1 44	2 88	2 88	2 88	4 32						
Bechers .....	2 28	2 52	2 52		2 88	2 88	1 20	1 44	1 44	1 44	1 44	1 44
Bookbinders .....	2 04	2 52	2 40	2 40	2 64	2 88	1 08	1 44				
Brass-founders .....	2 52	3 24	3 12			4 56						
Brush-makers .....	1 80	2 16	72	72	72	72						
Bricklayers .....	2 52	2 52	2 88	2 88	2 88	2 88						
Brick-makers .....	2 52	2 52	3 24	3 24	3 60	3 60						
Butchers .....	1 92	2 52	2 32	2 32	2 32	2 88						
Button-makers .....	1 08	1 20	2 16	2 16	2 88	2 88			1 08	1 08	1 08	1 08
Card-makers, (playing) .....	2 88	3 24	2 88	2 88	2 88	2 88	1 08	1 20				
Card-makers, (carding) .....	2 16	3 72	2 52	2 52	2 88	2 88						
Cabinet-makers .....	2 16	2 88	2 16	2 16	2 16	2 16						
Carpenters .....	2 64	2 72	2 70	2 79	2 88	3 24						
Cartoon-makers .....	3 24	3 24	2 52	2 52	3 24	3 24	1 20	1 44	1 08	1 08	1 20	1 20
Cigar-makers .....	2 78	2 78	2 16	2 16	2 16	2 40	90	1 08	72	72	48	2 16



Table showing the average weekly rates paid for labor in the district of Chemnitz, &amp;c.—Cont'd.

Trades.	Males.						Females.					
	1860.	1864.	1865.	1866.	1867.	1868.	1860.	1864.	1865.	1866.	1867.	1868.
Chair-framers.....	\$2 16	\$2 16	\$2 52	\$2 52	\$2 88	\$2 88						
Chemical-manufacturers.....	1 62	1 98	2 40	2 40	2 40	2 40	\$0 72	\$0 96				
Chimney-sweepers.....	1 92	1 92	72	72	72	72						
Cloth-finishers.....	2 37	2 37	3 24	3 24	3 24	3 24	90	1 08	\$0 96	\$0 96	\$0 96	\$0 96
Cloth-weavers.....	2 04	2 40	2 88	2 88	3 12	3 60	72	72	84	84	84	84
Cloth-shearers.....	1 80	2 52	2 88	2 88	2 88	2 88						
Cloth-printers.....	3 24	2 16	3 24	3 24		3 60	1 44	1 68	*48			
Comb-makers.....	1 08	1 20	1 44	1 44	1 44	1 44						
Confectioners.....	2 16	2 88	1 44	1 44	1 80	1 80						
Coopers.....	2 40	2 88	3 60	3 60	3 60	3 60						
Cotton-spinners.....	2 16	2 88	2 88			3 60	1 08	1 20	1 08			1 08
Crockery-ware artists.....	4 32	5 04	4 32	5 04	5 04	5 04						
Crockery-ware workmen.....	2 88	2 88										
Day-laborers.....	1 68	1 92	2 04	2 07	2 16	2 34						
Distillers.....	3 18	3 18	1 44	1 44	1 44	1 44						
Dyers of silk and wool.....	1 44	1 80	2 88	2 88	2 88	2 88						
Engravers.....	3 96	2 88	3 60	3 60	3 60	3 60						
File-cutters.....	2 16	2 88	2 88	2 88	2 88	2 88						
Fringe-makers.....	1 92	2 16	2 16	2 16	2 16	2 40						
Furriers.....	1 56	1 80	2 42	2 42		3 60						
Gardeners.....	1 80	2 16	1 44	1 44	1 44	1 44						
Glaziers.....	1 08	1 26	2 64	2 64	2 88	2 88						
Glass-workers.....	2 16	2 88	2 88	2 88	2 12	2 96						
Glove-sewers.....	2 52	3 60	2 88			1 44	96	1 02	1 08	1 08	1 08	1 08
Goldsmiths.....		3 12	3 24	3 24	3 24	3 24						
Gunsmiths.....	2 16	2 40	1 68			1 68						
Hatters.....	1 68	2 16	2 16	2 16	2 52	2 52						
Harness-makers.....	2 16	2 34	96	96	1 08	1 08						
Iron and steel workers:												
Iron-founders.....	2 52	\$2 16 3 60	2 88			3 12 4 32						
Machine-builders.....	3 24	2 24	3 12	3 12	3 17	3 24						
Locksmiths.....	2 16	2 88	2 88	2 88	3 60	4 32						
Cutlers.....	1 20	1 44	2 16	2 16	2 16	2 40						
Nail-makers.....		2 52	3 40	2 40	2 40	3 40						
Blacksmiths.....	1 08	1 20	96	96	1 08	1 08						
Screw-makers.....		2 52	2 88	2 88	3 60	4 32						
Lithographers.....	3 96	3 96	4 12			4 32						
Loom-builders.....	2 16	2 88	2 52	2 52	2 52	2 52						
Millers.....	2 05	2 15	1 92	1 92	1 92	1 92	1 26	1 44	1 44	1 44	1 80	1 48
Milliners.....												
Mining:												
Carpenters.....	4 32	5 04										
Miners.....	4 68	4 68										
Drawers.....	2 52	2 52										
Day-laborers.....	2 30	2 50										
Needle-makers.....	2 16	3 60	72	72	96	96						
Oilcloth-makers.....	1 80	1 92	2 04	2 16	2 28	2 40						
Potters.....	2 16	2 88	2 40	2 40	2 40	2 40						
Printers:												
Compositors.....	3 60	3 60	3 24	3 24	3 60	3 60						
Boys.....	1 08	1 04	72			96						
Rope-makers.....	1 08	1 08	96	96	96	96						
Saddlers.....	84	96	96	96	96	96						
Saw-mill laborers.....	2 16	2 52	2 52	2 70	2 88	2 88						
Slaters.....	1 80	1 80	1 92	1 92	1 92	1 92						
Shoemakers.....	1 20	1 44	1 68	1 68	1 68	1 68						
Shoemakers' tools.....	1 20	1 44	2 88	2 88	2 88	2 88						
Soap-makers.....	1 80	2 12	2 52	2 52		2 88						
Stocking-weavers, (ma- chine).....	3 96	3 96	3 96			5 04						
Stone-masons.....	2 16	2 64	2 64			3 60						
Stone-cutters.....	3 36	3 36	5 76		6 48	7 20						
Stone-quarrymen.....	1 98	2 16	2 16	2 16	2 16	2 16						
Tailors.....	1 20	1 68	2 88	2 88	2 88	2 88						
Tanners.....	1 08	1 20	1 08	1 08	1 08	1 44						
Turners.....	96	1 08	96	96	1 08	1 08						
Tapestry-makers.....	2 52	2 88	2 40	2 40	2 40	2 40						
Watchmakers.....	2 16	2 08	2 16	2 16	2 40	2 88						
Wheelwrights.....	2 16	2 52	2 28	2 40	2 52	3 28						
Worsted-work.....			1 44	1 68	1 68	1 68	60	48	48	48	60	60
Wire-cloth makers.....	2 52	2 88	2 16	2 16	2 16	2 16						
Weavers, (silk).....	2 16	2 16	2 16	2 16	2 40	2 40						
Wool-combers.....	2 88	3 24	2 52	2 52	2 70	2 88	1 08	1 08	1 08	1 08	1 08	1 20

\* Children.

Table showing the average weekly rates of labor paid in the district of Chemnitz, Saxony, in the year 1871.

Trades.	CLASS I.—Chemnitz, about 70,000 inhabitants.	CLASS II.—Towns with 10,000 to 20,000 inhab- itants: Glauchau, Meerane, Annaberg, Döbeln.	CLASS III.—Towns with 5,000 to 10,000 inhab- itants: Frankenberg, Buchholz, Rochlitz, Mittweida, Hainichen, Borna, Penig, &c.	CLASS IV.—Towns with less than 5,000 inhab- itants: Lichtenstein, Pegau, Geyer, Ernst- thal, Lengsfeld, Ruhm, Taucha, Roetha, Zöb- litz, &c.
Artificial-flower makers, fe- males	\$1 44 to \$1 87			
Barbers	*84	\$3 16	*\$0 60 to \$1 30	*\$1 08 to \$1 44
Bakers	*1 32 to 1 68	2 16	2 52	1 80 to 2 88
Brewers	2 88	3 60	2 16 to 4 32	1 44 to 4 32
Bleachers	2 88 to 3 60		2 52 to 2 88	2 52 to 3 60
	1 92 to 1 54	\$2 52 to 2 88		
Bookbinders	3 96 to 4 32	2 64 to 3 24	1 44 to 2 16	2 52 to 4 32
Basket-makers	3 06	*1 44 to 1 80	96 to 1 68	1 08 to 1 80
Brace-founders			*1 08 to 1 56	1 80 to 2 16
Brick-layers, (see tile-layers).			2 88 to 3 60	
Bronze-makers				*86 to 1 80
Brush-makers	2 76 to 2 88	*72		*96
Butchers	*1 08	2 16	*90 to 1 80	1 44 to 2 88
Button-makers	3 60			1 68 to 2 88
Cabinet-makers	4 08	3 24	2 52 to 3 60	1 80 to 2 88
Calico-printers	2 88 to 3 60	2 88 to 3 60		
	1 68 to 4 24			
Calico-printer laborers	2 88 to 3 24			
	1 54			
Carpenters	3 36	3 36 to 3 60	2 34 to 4 32	2 52 to 4 32
Chair-frame makers	3 60		2 88 to 4 68	
Chemical factories, laborers	2 28 to 3 60		1 39	
Chimney-sweepers	2 16	2 52	*1 44	2 16
China manufacture: Day-laborers	2 50	2 16 to 2 88	2 04 to 2 88	1 15 to 2 16
Cigar-makers	2 44 to 2 88	2 88 to 1 44	1 36 to 5 04	1 08 to 4 32
	96 to 1 44		1 08 to 3 60	1 36
			1 24 to 1 08	
			2 16 to 4 32	
Clock-case makers			*1 08	
Comb-makers	*1 20	3 60		2 88
Confectioners	3 60	*1 80	1 80 to 2 52	*1 08 to 1 80
Coopers	*1 20		72 to 1 20	
Crotchet and netting work		1 08 to 1 72	1 36 to 72	
Crinoline-makers		5 40 to 1 80		
Distillers, brandy	3 60	2 88	*72 to 2 52	*2 52
Dyers in silk and wool	3 60 to 3 96	2 52 to 2 88	1 98 to 4 32	2 16 to 5 04
		1 56		
Engravers	4 32	3 24 to 4 32	3 96	
Farriers or horseshoers	*1 98	3 60	2 16 to 3 24	
File-makers	5 76	2 16	2 16 to 2 88	2 88 to 3 60
Fringe-manufacturers		2 52	1 44 to 1 80	
Forriers		3 24	1 44 to 3 24	*1 80
Fullers and wool-washers				2 16 to 2 52
Gardeners	2 16	2 16 to 2 88	*1 20	2 88 to 3 60
Glass-stainers	2 70 to 4 32	2 88	1 80 to 5 76	2 16 to 3 60
	1 44 to 1 80		1 68	1 72
Glaziers	3 96 to 4 32	2 52 to 4 32	2 88 to 3 60	*1 08 to 1 80
Glove-sewers, females	1 08	1 44 to 1 72	60 to 1 80	72 to 1 80
Gold and silver workers	5 76	3 24	1 29 to 48	*1 68 to 2 16
Grinding and polishing estab- lishments	5 76		3 60	
Gunsmiths			1 98	
Hair-dressers	3 60 to 4 50	2 16 to 2 88		
Harmonicon-makers	2 88			
Harness-makers	2 88	2 88	1 44	
Hatters	3 60 to 3 96	2 16 to 2 88	3 06 to 3 24	*96 to 1 44
	1 20 to 1 80			
	3 24			
Hose-manufacturers	1 43 to 48			
Iron-founders	3 36 to 5 04	3 60 to 4 32	2 88 to 4 68	1 80 to 2 88
Lithographers, males	3 60 to 5 76	3 24 to 4 32	3 60 to 1 44	
	36 to 1 80			
Locksmiths	4 50	3 24	2 70 to 5 04	2 40 to 4 32
Loop-sewing, females		2 34		72 to 1 32

\* Besides board and lodging.

† Children's wages.

Table showing the average weekly rates of labor paid in the district of Chemnitz, &amp;c.—Cont'd.

	CLASS I.—Chemnitz, about 70,000 inhabitants.	CLASS II.—Towns with 10,000 to 23,000 inhab- itants: Glauchau, Meerane, Annaberg, Döbeln.	CLASS III.—Towns with 5,000 to 10,000 inhab- itants: Frankenberg, Büchholz, Rochlitz, Mittweida, Hainichen, Borna, Penig, &c.	CLASS IV.—Towns with less than 5,000 inhab- itants: Lichtenstein, Pegau, Geyer, Ernst- thal, Lengsfeld, Thum, Tauscha, Koetha, Zeeb- litz, &c.
Machine building:				
Machine smiths.....	\$4 20	\$4 32	\$3 16 to \$5 76	\$3 16 to \$3 24
Machine wood-workers ..	\$2 64 to 3 36	\$2 60 to 5 04	2 52 to 4 32	
Other workers .....	2 76 to 2 94	2 16 to 2 88	2 08 to 4 32	
Masons .....	3 12 to 3 96	2 88 to 3 96	2 52 to 4 32	2 40 to 4 80
Match-manufacturers, males.				2 64 to 3 36
Mechanicians and opticians..	4 32			1 48 to 2 24
Millers .....	6 00	2 88 to 3 36	1 68 to 2 16	1 44 to 4 32
Miners:				
Metal.....	2 52		1 44 to 2 16	1 44 to 2 24
Slate.....			1 15 to 1 30	
Stone.....			1 44 to 2 16	
Coal.....			1 15 to 1 30	
Modistes or milliners, females	2 16 to 2 28	2 16	4 32 to 6 48	72 to 2 28
Nail factories.....	2 16 to 5 96		72 to 1 80	*1 44
Needle and pin makers .....		*72 to 96		*1 20 to 1 44
Painters and varnishers, or- namental .....	5 64 to 3 96	2 88 to 4 68	3 24 to 6 48	1 80 to 4 32
Point-lace workers, females ..	3 48 to 2 52	1 44		96 to 1 20
Oil-cloth manufacture .....	3 60 to 3 84			72
Paper manufacture .....				1 72 to 2 16
Patrons .....		3 24 to 4 32	2 52 to 3 60	2 16 to 5 04
Potters, general work .....	5 76		3 60	1 80 to 2 88
Portfolios, leather and fancy goods .....			2 16 to 2 88	1 80 to 4 32
Pattern-drawer .....			1 20 to 1 44	5 04 to 2 88
Photographers.....	5 76 to 7 20			
Plaster of Paris or gypsum manufacture .....	*2 52 to 11 08	3 60		
Playing-card manufacture ..	3 60 to 4 32		2 52 to 3 24	
Powder-mills .....	*1 80		1 80 to 2 16	
Printers or type-setters .....	5 40	3 88 to 4 68	2 88 to 5 76	2 88
Printers, boys and girls .....	72 to 1 44	1 08 to 1 44	1 08 to 2 16	2 52 to 3 60
Purse, glove, and cap makers.	3 24 to 3 42	2 88	2 52 to 3 24	*96 to 1 80
Quarrymen .....		3 60	2 16 to 4 32	2 52 to 4 32
Ribbon-manufacture .....			1 44 to 3 60	1 44 to 3 60
Roofing-factories .....	2 88 to 3 36			2 88 to 60
Rope-makers .....	4 32	1 08 to 1 20	*96 to 1 62	2 88 to 60
Saddlers .....	3 36	2 88	1 44	1 68 to 2 24
Saw-mills .....	3 24	2 88 to 3 24	*1 44	2 16 to 3 48
Screw-manufacture .....				1 44 to 2 16
Sculptors .....	5 04			
Shoe-makers .....	2 40	2 16 to 2 52	1 44 to 2 88	1 80 to 2 88
Sieve-makers .....	2 52			
Slater or roof-coverer .....	4 14	2 88	2 16 to 4 68	2 52 to 4 32
Smiths:				
Copper-smiths .....	6 00	2 88 to 4 32	*1 80 to 2 16	2 40
Cutlery-smiths .....	3 60	*1 08 to 1 44		
Boiler-smiths .....	5 16			
Technical instruments .....	4 32		2 34 to 2 88	
Nail-smiths .....			2 16 to 3 24	
Blacksmiths .....	*1 96	3 60	2 16 to 3 24	1 96 to 3 60
Soap-boilers.....	3 60	2 52		1 80
Spinning:				
Cotton.....	1 80 to 4 32		3 96	
Loose yarn.....	1 62 to 2 34		96 to 1 80	
Cam-yarn.....	154 to 72			
Flax spinning.....	3 24 to 1 69			
Stitch or loop work .....	136 to 48			
	2 16 to 2 88		2 52 to 3 36	
	1 44 to 1 68		11 08	
	1 42 to 48		2 88 to 1 20	
				2 88 to 4 32
				1 44 to 1 80

\* Besides board and lodging.

† Children's wages.

Table showing the average weekly rates of labor paid in the district of Chemnitz, &amp;c.—Cont'd.

	CLASS I.—Chemnitz, about 70,000 inhabitants.	CLASS II.—Towns with 10,000 to 23,000 inhab- itants: Glanbach, Mee- rane, Annaberg, Döb- eln.	CLASS III.—Towns with 5,000 to 10,000 inhab- itants: Frankenberg, Buchholz, Rochlitz, Mittweida, Hainichen, Borna, Penig, &c.	CLASS IV.—Towns with less than 5,000 inhab- itants: Lichtenstein, Pegau, Geyer, Ernst- thal, Lengefeld, Trum- Tauscha, Roetha, Zöb- litz, &c.
Stocking-weavers:				
Hand .....	\$1 44 to \$1 80		\$1 08 to \$2 16	\$1 44 to \$2 88
Machine .....	54 to 72		96	11 08
Stocking-frame builders .....	2 16 to 5 76		2 16 to 5 76	1 08 to 1 80
Stone-quarries .....	4 32		1 44 to 2 88	1 80 to 2 88
Stone-cutters .....	3 24 to 7 20	\$3 60	2 88 to 3 60	
Stone-workers, serpentine .....		\$4 32 to 7 20	3 60 to 4 50	3 60 to 5 76
Stone-setter .....	3 96 to 5 76	3 24 to 4 32	4 32	
Straw-hat manufacture .....		1 44	2 88 to 3 60	2 16 to 5 04
Strings for musical instru- ments .....				1 08
Sawery factory .....				2 34 to 1 44
Steam-engine firemen .....	3 24	2 88 to 4 32	1 80 to 3 12	1 98
Tailors .....	3 96	2 16 to 3 60	2 16 to 3 60	3 60
Tanners .....	3 24 to 3 60	2 88	2 70 to 3 60	1 68 to 4 32
Tile or brick layers .....		2 16 to 3 24	4 32 to 5 04	2 16 to 3 96
Tile-makers .....	5 76 to 7 20		2 88 to 5 76	2 16 to 5 04
Tin-founders .....	1 08		1 08	2 88 to 3 96
Tinkers .....	2 64 to 5 76	2 52	2 52 to 3 24	2 52
Turners in metal .....		2 52		
Turners in wood .....	2 88 to 3 12		2 52 to 3 60	1 44
Umbrella-makers .....	2 76 to 1 80			
Upholsterers & trunk-makers .....	2 52 to 3 96	2 88 to 4 68		
Walking-stick or cane-manu- facturers .....				1 80
Watch and clock makers .....	5 40	3 24	2 58 to 3 60	1 98 to 2 52
Weaving-alais makers .....	1 68 to 3 24	2 88 to 1 44		
Weaving-chair makers .....	90 to 1 44	4 32 to 1 92		
Weaving silk-weaver .....	3 24	2 40	2 88 to 4 32	
Hand-weavers:				
On damask .....	2 16		2 16 to 2 88	1 80 to 2 16
On piqué .....			2 16 to 2 52	1 44 to 2 88
On quilts and carpets .....	2 40	2 16 to 3 60	1 80 to 3 60	1 44 to 2 40
On fustian and lining } calico .....			1 44 to 1 43	
Wheelwrights .....	4 08	2 64	1 08 to 2 40	
Wire-cloth weavers .....	2 52		1 56	
Wood-polishing .....			2 16 to 2 88	1 80 to 2 88
Wood-work, boxes and cases .....				1 68 to 2 88
Wood-work, wooden toys .....			2 52 to 3 24	2 88
Wool-card manufacture .....	3 60 to 1 92		2 52	
Woolen-cloth weavers .....			1 68 to 3 60	
Woolen-cloth shearers .....			1 44	
Wool-printing .....	3 24 to 4 68	3 24 to 3 60	2 88	
	124 to 36		2 52 to 3 60	

\* Besides board and lodging.

† Children's wages.

## WAGES IN SAXONY IN 1870.

*Basket-making in Zwenkau, Saxony.*—In 27 factories, with 73 skilled laborers and 30 apprentices, good workmen earn per week 4 thalers = \$2.88; three of the above factories manufacture exclusively children's cradle-baskets.

*Chair-makers in Waldheim, Saxony.*—Chair-makers, per week, from \$2.16 to \$2.88; polishers, per week, from \$3.60 to \$4.32; packers, per week, from \$1.44 to 1.80.

*Casks and barrel-factory in Döbeln, Saxony.*—Coopers, per week, from \$4.32 to \$7.20; finisher of small casks and barrels, per week, from \$2.16 to \$4.32.

Day-laborers in cooper-shops, for 12 working-hours, receive 40 cents; unskilled laborers, 30 cents.

*Straw-plaiting in Zwenkau, Saxony.*—This industry is chiefly carried on by women and children, besides their housework and school-hours; such of the men as are occupied during the summer-months in brick-kilns, &c., plait straw in the winter. The earnings for men per day are not less than 18 cents; women, 10 cents; children, while attending schools, 4 cents.

*Paper and pasteboard manufacture, Chemnitz, Saxony.*—Wages vary from 96 cents to \$3.60 per week.

*Pasteboard boxes and other articles of pasteboard, Buchholz, Saxony.*—Men, per week, from \$2.52 to \$4.32; women, \$1.20 to \$1.80; children, 36 cents to 39 cents.

The above industry consists of the manufacture of boxes for chocolate, candies, soaps, perfumeries, gloves, hose and half-hose, trimmings, labels, envelopes, tickets, &c.

*Playing-card factories at Chemnitz, Saxony.*—Wages per week for men, \$2.16 to \$3.60; wages per week for women, 84 cents to \$1.80.

*Manufacture of Chinese lanterns, &c., Zwenkau, Saxony.*—Children, over 12 years of age, working from 3 to 4 hours per day, earn weekly from 36 cents to 48 cents; men, working 12 hours per day, earn daily from 36 cents to 48 cents.

*Printing-offices in Chemnitz, Saxony.*—Type-setters and printers, per week, \$2.88 to \$5.76; women and girls, \$1.20 to \$1.80; apprentices, 72 cents to \$1.68.

*Leather-belting for machines, &c., Chemnitz, Saxony.*—Men, per week, \$2.52 to \$4.32; women, \$1.20 to \$1.68.

*Kid-glove sewing at Oberwiesenthal, Saxony.*—Wages, for 1 dozen gloves, sewed, 54 cents.

*Felt and cloth shoe factory, Waldheim, Saxony.*—Men, per week, \$3.60.

*Cigar factory, Waldheim, Saxony.*—Rollers and sorters, per week, (male and female,) \$1.20 to \$3.60; girls, 12 to 16 years of age, 72 cents to \$1.68; children, under 14 years of age, 36 cents to 72 cents.

*Slate-quarries, Rochlitz, Saxony.*—Daily earnings from 36 cents to 40 cents.

*Earthen and stone ware manufacture, Chemnitz, Saxony.*—Weekly earnings of men, \$2.16 to \$5.76; women and boys (14 to 16 years of age,) \$1.20 to \$1.44. Working-hours in summer-time, 12; in winter, 10.

*Cloth-weaving establishments in Meerane, Saxony.*—Weekly earnings of men, \$2.16 to \$3.60; weekly earnings of women, \$1.62; weekly earnings of children, 36 cents to 48 cents.

*Plush-weaving, Frohburg, Saxony.*—Men, \$1.44 to \$1.80.

## CITY LOCAL-EXPRESS COMPANIES IN SAXONY.

Place.	Name of company.	Year of organization.	No. of expressmen.	Wages per week.
Annaberg...	Express .....	1862	30	\$1.80, without percentage.
Chemnitz...	Müller's Express Company .....	1861	60	\$2.16 to \$2.70.
Do.....	Expressmen's Institution, (yellow marks of distinction) .....	1868	50	\$1.80 to \$2.52.
Do.....	United Expressmen Institution, (white marks of distinction) .....	1868	25	\$1.68.
Döbeln....	Expressmen's Institution .....	1862	3	These expressmen work for their own account and pay a weekly amount of 18 cents for the loan of tools, &c.
Waldheim..	Expressmen's Institution .....	1862	3	
Leisnig....	Express .....	1867	5	
Mittweida.	Express Company .....	1861	6	
				\$1.92.
				\$1.44 to \$2.16.

The above consists mainly in unskilled labor of every kind, garden work, transportation and packing of furniture and other articles, carrying of circulars, cards, bills, &c., &c.

## PRICES OF FACTORY-LABOR IN CHEMNITZ IN 1872.

The statements presented in the preceding six pages show the rates paid for mechanical and other labor in the district of Chemnitz during the year 1860, and in the years from 1864 to 1868, inclusive; also the weekly wages which obtained in the year 1871, classified according to the population of the respective towns, which tables, as well as the given statement of wages in Saxony in 1870, have been translated from the reports of the Chemnitz chamber of commerce. It will be observed that the rates in the latter years exhibit a considerable increase over those of 1860.

The rates which prevailed in 1872, when the author visited this district, and which are presented in the following pages, showed a decided advance over those of 1871:

Occupation.	Hours of labor per day.	Per week.		
		Men.	Women.	Children.
<b>Hosiery factories:*</b>				
Stocking-weavers, according to skill and industry .....	10	\$2 88 to \$3 60	.....	.....
Ordinary hands .....	10	1 44 to 2 16	.....	.....
Superintendent of factory .....	10	5 04 to 8 64	.....	.....
Machinists .....	10	3 60 to 5 04	.....	.....
Locksmiths .....	10	3 60 to 5 04	.....	.....
Spoolers, weavers, &c. ....	10	.....	\$1 80 to \$2 88	.....
Bleachers .....	10	3 12	1 44	.....
Edging-machine workers .....	10	2 88 to 5 76	.....	.....
Hydraulic-press men .....	10	2 88 to 5 04	.....	.....
Finishers, assorters, stampers .....	10	.....	1 44 to 1 80	.....
Spoolers .....	10	.....	1 68	.....
Weavers, on piecework .....	10	4 44	2 40	.....
Cutters, on piecework .....	10	.....	2 04	.....
Sewers, on piecework .....	10	.....	1 08 to 1 26	.....
Formers, on piecework .....	10	.....	1 92 to 2 88	.....
Finishers .....	10	.....	1 20	.....
Master-finishers .....	10	4 68 to 6 48	.....	.....
Finishers' assistants .....	10	.....	1 68 to 2 16	.....

\* This establishment, beside the fixed wages, pays an extra percentage for good work.

## Factory labor—Continued.

Occupation.	Hours of labor per day.	Wages per week.		
		Men.	Women.	Children.
<b>Hosiery factory—Continued.</b>				
Formers .....	10		\$3 16 to \$3 88	
Dressers .....	10		1 56 to 1 68	
Pressers .....	10	\$3 60 to \$4 32		
<b>Another factory:</b>				
Stocking-weavers .....	10.40	3 24		
Spoolers .....	10.40		1 44	
Glove-makers .....	10.40		2 16	
Glove embroiderers and quilters .....	10.40		2 88	
Glove and stocking formers .....	10.40		1 62 to 2 16	
Cotton-glove finishers .....	10.40		1 08 to 1 80	
Cotton-glove cutters .....	10.40		1 20 to 1 56	
Weavers of gloves on frames .....	12		1 08 to 1 44	
Weavers of gloves on frames .....	12		1 44 to 1 80	
Weavers of glove-cloth on power-loom .....	12	1 80 to 2 52		
Girls, at piecework .....	12		1 44 to 1 80	
Girls, ornamenting and embroidering .....	12		1 44 to 2 16	
Girls, making hand silk-points .....	12		0 72 to 1 20	
Girls, making button-holes, &c., by hand .....	12		0 72 to 1 20	
Girls, finishing .....	12		1 08 to 1 68	
<b>Yarn factory:</b>				
Spinners, on piecework .....		4 32	1 44 to 1 92	\$1 08 to \$1 28
<b>Cotton-spinning:</b> <sup>*</sup>				
Assorters, &c., per 10,000 spindles .....			1 44	
Dressers-up .....			1 80 to 2 16	
Turning-in on self-acting machines .....				1 08
Twirlers .....			1 44 to 1 80	
Weighers, packers .....			1 80 to 2 16	
Grinders, polishers .....		3 24 to 3 60		
Spinners .....		3 24 to 3 42		
Locksmiths .....		4 08 to 5 40		
Watchmen and day-laborers .....		2 52 to 3 24		
Carding and spinning master, machine-builder, &c. .....		17 20 to 17 92		
Machinists, gas-fitters, &c. .....		3 06 to 3 84		
<b>Manufactures of Thibets, &amp;c.:</b>				
Weavers, on power-loom .....	12 to 13	3 42		
Weavers, on hand-loom .....	12 to 13	12 40	11 98	
<b>Dyeing:</b>				
Foreman .....	11	7 90		
Assistant foreman .....	11	4 32 to 5 76		
Dyers .....	11	2 88 to 3 60		
Firemen .....	11	2 88 to 3 60		
Laborers .....	11	2 40 to 2 88		
At other work .....	11	2 16 to 2 40	1 44 to 1 80	1 44 to 1 80
<b>Damask factory:</b>				
Machine-loom .....	11	2 88	1 80	
Finishers .....	11	3 24	1 36	
Chain-shearers .....	11	2 52 to 3 24		
Hand-loom weavers .....	11	2 52 to 4 32		
Work-masters .....	11	3 24 to 6 48		
Preparatory machines .....	11			1 32
<b>Machine-works:</b> <sup>†</sup>				
Borers, planers, screw-smiths .....		4 50		
Turners .....		5 04		
Founders and molders .....		5 84		
Hammersmiths .....		5 76		
Strikers .....		2 58		
Tinsmiths .....		6 72		
Coppersmiths .....		7 90		
Brasiers, (kettle-makers) .....		6 80		
Varnishers .....		2 88		
Pattern-makers .....		3 48		
Polishers .....		4 54		
Blacksmiths .....		6 48		
Grinders .....		4 56		
Smelters .....		3 24		
Locksmiths .....		3 96		
Saddlors .....		3 78		
Joiners .....		4 32		

\* Seventy-three hours of labor produce, on the average, 12,000 pounds of stocking-yarn No. 20.

† And house-room.

‡ The difference between the wages of male and female labor consists, mainly, in the manufacture of finer articles, intrusted to the women.

§ Hours of labor per week, 60.

## Factory labor—Continued.

Occupation.	Hours of labor per day.	Wages per week.		
		Men.	Women.	Children.
<b>Machine-Works Association:</b>				
<b>Kettle-factory:</b>				
Brasiers .....		\$3 60 to 5 76		
Brasiers, on piecework .....		6 48 to 7 42		
Strikers .....		9 88		
Boys .....		1 44		
<b>Copper-works:</b>				
Coppersmiths .....		3 96 to 4 32		
Coppersmiths, on piecework .....		5 04 to 5 76		
Assistants .....		9 88		
<b>Brass-foundry:</b>				
Founders .....		4 32 to 7 20		
Cast-polishers .....		2 88 to 4 32		
Boys .....		1 02		
<b>Smith-shop:</b>				
Smiths .....		3 60 to 4 32		
Smiths, on piecework .....		5 04 to 7 20		
Strikers .....		9 88		
<b>Turners' shop:</b>				
Turners .....		2 88 to 3 60		
Apprentices, first to third year .....		36 to 1 08		
<b>Boring-machines:</b>				
Borers .....		2 16 to 3 60		
Borers, on piecework .....		4 32 to 5 04		
<b>Planing-machines:</b>				
Planers .....		2 16 to 3 60		
Planers, on piecework .....		5 76 to 7 20		
<b>Locksmiths' shop:</b>				
Machine locksmiths .....		3 24 to 4 32		
Machine locksmiths, on piecework .....		5 76 to 8 64		
<b>Cabinet-shop:</b>				
Model-makers, carpenters .....		3 60 to 4 32		
Model-makers, carpenters, on piecework .....		5 04 to 6 48		
<b>Tinshop:</b>				
Tinsmiths .....		3 60 to 4 32		
Tinsmiths, on piecework .....		5 04 to 6 48		
Assistants .....		1 98 to 2 88		
<b>Wire-weaving shop:</b>				
Weavers, (chiefly on piecework) .....		5 76 to 6 48		
<b>Unskilled laborers .....</b>		2 52 to 2 88		
<b>Machine-works, making embroidering machines:</b>				
Cabinet-makers and pattern-makers .....		6 48 to 10 08		
Locksmiths .....		5 04 to 10 80		
Iron-turners .....		5 04 to 8 65		
Planers .....		4 32 to 7 92		
Borers .....		3 60 to 5 76		
Polishers .....		3 60 to 5 76		
Smiths .....		5 76 to 8 65		
Machine-builders, (setting up machines) .....		8 64 to 18 00		
Apprentices .....		1 44 to 3 60		

Although the preceding statements show the price of labor in the manufacturing establishments of Chemnitz as prepared chiefly by the respective proprietors, yet as it is believed that some of the notes of the author, taken as he visited the factories, will afford additional information on the subject, they are reproduced here:

*Hartmann & Co.'s machine-works.*

CHEMNITZ, SAXONY, September 16, 1872.

Accompanied by Mr. Rider, United States consul, visited the works of the Saxon Machine Company, (Hartmann & Co.,) the largest establishment of the kind in Saxony, and, except Borsig's, at Berlin, the largest in Germany. About 200 men are employed.



The following are the rates of wages or weekly earnings of the men: Molders on piecework, from 6 to 8 thalers, \$4.30 to \$5.76.

Machinists and riveters, average \$4.68.

Carpenters and wood-workers, 5 thalers, \$3.60. (These formerly worked by the piece and earned more.)

Common laborers, 4 thalers, \$2.88.

Apprentices, first year, 20 groschen per week, (48 cents;) second year, 84 cents, and an increase of 10 groschen, (24 cents,) each subsequent year. There are about 75 apprentices and 125 young men under instructions employed; 200 in all.

(Hours of labor, 10 per day.)

Coal now costs 7 thalers (\$5.04) per ton, formerly 5 thalers. It is brought from the district of Zwickau, about 60 miles.

They import part of the pig-iron used from England and Scotland.

They make cotton and woolen machinery, locomotives, and a variety of other machinery.

#### *Hössel & Co.'s damask-factory.*

Visited the factory of Hössel & Co., who make damasks, velvets, reps, &c., some all wool. They employ a few men and 800 women. Wages average as follows:

Women, 23 thalers per week, \$1.98.

Men in mill, 4½ to 5 thalers, \$3.24 to \$3.60.

Men dyers, 4½ to 5 thalers, \$3.24 to \$3.60.

An allowance of 1 thaler (72 cents) per month for rent is made to the married men who have been employed in this establishment for more than one year, and 20 silver groschen (48 cents) if under a year.

Many of their working-people live out of the city and bring their dinners. They are very frugal, living largely on coffee and potatoes. They had little kettles with coffee, some had bread, others potatoes, some both. They cooked their potatoes and warmed their coffee in the mill. Men with families live in two rooms, paying from 3 to 4 thalers (\$2.16 to \$2.88) per month in the city, but in the country only about 30 thalers (\$21.60) per year.

*Wages of masons.*—Men and women at work on an addition to the factory earn as follows:

Bricklayers, per week, 5 thalers, \$3.60.

Master masons, 6 thalers, \$4.32.

Women to mix mortar and assist the masons, earn during the building season 4 thalers, (\$2.88.) These women are chiefly from Bohemia, who return home and remain during the winter.

*Nottingham Knitting Company*, (Mr. Felkner, manager.) Established by Mr. Mundella, M. P., of England, who is one of the principal stockholders.

Wages of men in factory, average \$3.60 per week.

Wages of females in factory, \$1.50 to \$2.50 per week; average, \$1.44.

Their principal factory is at Pausa, a small village of about 2,000 inhabitants, near Hof, and not far from Bavaria, where from 1,800 to 2,000, chiefly females, are employed. They have their knitting-frames at their homes, where all the members of the family work, and earn but from 3 to 4 thalers per week, at piecework. They receive from 44 to 130 sgr, (\$1.06 to \$3.12,) per dozen. On the finest hose, selling at 8 thalers per dozen, the price paid is but 130 groschen, and as a family of ordinary size can complete but 1 dozen per week, their earnings (\$3.12) are very small. In the factory at Pausa the females earn but from 1 to 2 thalers, (72 cents to \$1.44,) per week.

*H. Starke & Co.*, manufacturers of common cotton hosiery, employ about 300 hands.

The men earn 5 thalers per week, \$3.60.

Women to finish goods, 2½ to 3 thalers, \$1.80 to \$2.16.

### LEIPSIK, SAXONY.

The two annual statements of Mr. Consul Steuart, as given below, exhibit the kind and value of merchandise manufactured in this district which in the years indicated found a market in the United States.

*Statement of the description and value of merchandise certified at the Leipsic consulate and exported to the United States during the years ending September 30, 1873 and 1872.*

Kind of merchandise.	Value.	
	1873.	1872.
Woolen and half-woolen goods .....	\$308, 634	\$1, 306, 639
Furs and skins .....	523, 782	430, 390
Cotton and linen goods .....	389, 786	263, 560
Books, music and pictures .....	376, 770	286, 565
Musical and other instruments .....	255, 633	273, 955
Laces and trimmings .....	169, 976	279, 638
Drugs .....	83, 409	99, 144
Kid gloves .....	90, 646	163, 577
Human hair .....	86, 265	87, 564
Toys and fancy-ware .....	55, 556	66, 345
Bristles .....	35, 447	47, 649
Machinery and iron-ware .....	6, 515	14, 064
Miscellaneous .....	53, 438	29, 430
Total value in United States gold dollars .....	2, 929, 057	3, 448, 540

Leipsic is celebrated for its three annual fairs, and for its extensive book-making establishments. Its book trade being the largest in the world, the following brief notice may prove interesting.

### THE BOOK TRADE OF LEIPSIK.

It is a fact well known to the literary and scientific world that this city distances all others in the book trade, particularly for works in the German tongue; and not for that alone, but also in the majority of modern and dead languages.

As the American author intrusts his manuscript to a publisher in New York, Boston, or Philadelphia, so does the French writer with one in Paris, the English with one in London, and the German, and, it might almost be said, those of the rest of Europe, with the publishers of Leipsic, this being the metropolis of German letters, and only a few good works are published at other places in the German Empire.

The sale of books forms one of the most important branches of commerce here; it alone is said to amount to two millions of dollars yearly. In fact the whole book trade of Germany is centered on the spot, and every bookseller in Germany and the adjoining countries has an agent here. Six hundred booksellers sometimes assemble at the Easter fair to settle their annual accounts and purchases, and there are 130 residents and 40 printing-offices. They have an exchange of their own called the Deutsche Buchhändler Börse, where they meet and transact business.

Among the most distinguished publishers are F. Brockhaus, editor of the far-famed *Conversations-Lexicon*, and Baron Tauchnitz.

The Leipsic City Directory for 1871 gives the names of 249 book-firms in a population of 106,925, smaller than that of Washington City, of which 114 are publishers, part of them having their own printing-establishments; 21 are book-commission-merchants; 21 are music publishers and dealers; 6 are antiquarians, some of them being firms of great importance.

The celebrated Leipsic auction-sales of books and objects of art are conducted by three book-firms, at certain regular stated periods. In 1868, twelve such auctions were held, resulting in the aggregate sales of 54,200 works, comprising some 200,000 volumes, and net proceeds of \$36,000. In 1869, there were eleven auction-sales, with 60,000 works and 250,000 volumes, an aggregate sale of \$54,000. The most important sale during this year was that of the library of the late Emperor Maximilian of Mexico, which realized \$16,560, and attracted purchasers not only from England and France, but from the United States.

Besides these book-auctions, there were two autograph-auction-sales, consisting of 3,300 numbers, and six auctions of objects of art, numbering 15,000.

In the year 1870, in consequence of the Franco-German war, there were but seven auctions of books and six of objects of art.

*Comparative statement of the works published by the German book-trade of Leipsic during the years 1868, 1869, and 1870.*

Subject of works.	1868.	1869.	1870.
Encyclopedias; works of reference; science of literature.....	196	262	271
Theology.....	1,440	1,607	1,470
National economy and law; politics and statistics.....	970	1,141	1,014
Medical, surgical, veterinary sciences.....	528	517	412
Natural sciences; chemistry and pharmacy.....	636	675	535
Philosophy.....	126	127	103
Educational and text books.....	966	1,131	997
Juvenile.....	246	322	235
Classics and oriental languages; antiquity and mythology.....	440	471	399
Modern languages.....	332	335	297
History and biography.....	710	634	694
Geography.....	290	269	234
Mathematics and astronomy.....	134	124	114
Military science and horses.....	281	308	242
Commerce and industry.....	425	424	411
Architecture, machinery, railroads, and navigation.....	190	213	192
Forestry and hunting; mining and smelting.....	83	93	91
Housekeeping, agriculture, and gardening.....	280	305	351
Belles lettres.....	958	999	739
Fine-arts; copy-books and stenography.....	437	435	346
Freemasonry.....	14	8	381
Miscellaneous works.....	361	364	369
Slavic and Hungarian works.....	38	62	50
Periodicals.....	237	335	371
Total for each year.....	10,348	11,161	9,566
Total for three years.....	31,375		

#### LEIPSIC FAIRS.

This quaint old city reposes in its normal inactivity, except during one of those seasons of the year when it becomes the principal mart and exchange of Northern Europe.

Three large fairs are held here annually, one beginning the first of January, called *Neujahrs messe*; another, the second Sunday after Easter, or the *Oster messe*; and, lastly, the Michaelmas *messe* in October. Of these three, each of them lasting three weeks, the Easter fair, already referred to, is by far the most important. These fairs are visited by merchants and foreigners from the most distant parts of the globe,

sometimes to the number of its actual population. The money transactions at one time amounted to 80,000,000 of thalers annually, though of late they have fallen short of this sum.

These fairs date back to the middle ages, and for a long period have been well known throughout all Europe. Indeed, among all the multitude of foreigners who flock together every spring to transact their business in Leipsic, it is probable that many a well-educated Greek and Asiatic knows more about this one city than he does about the country to which he belongs. During the fair all the principal squares and streets of the city are filled with long lines of temporary booths, in addition to the ordinary shops, in which goods of all kinds are exposed for sale—hardware, cloths, Bohemian glass and porcelain, furs of every variety, pottery, boots and hats, artificial flowers and hair, jewelry, toys, pipes and amber-work—in short, it is one great bazaar, where no product of human industry seems to be without its mart.

Every hotel and lodging-house is filled to overflowing; the streets are thronged with strange costumes and faces. Persians and Armenians, with their peculiar manners and dress; Polish Jews, with their long black buttoned-up frocks reaching to the ankles, gaunt, wily-looking men, and excellent specimens of the typical Israelite; Tyrolese, Americans, and English, Greeks and Turks, are mingled together as in a masquerade. The real business of the fair is seldom seen by the tourist, being carried on at the exchange, or *börse*, as it is called, where the merchants meet and transact their business.

Most of the countries of Europe send representatives here with their produce. Three or four hundred guests sit down daily at the tables-d'hôte of some of the principal hotels; gardens and coffee-houses are thronged; theaters are filled, and the concert and beer-gardens, as well as the circus-tents, crowded.

Reaching Leipsic a few days before the October fair, the author was nevertheless prevented, owing to previous arrangements for visiting manufacturing districts which constituted the main purpose of his visit, from remaining during its continuance. Its near approach was indicated by the booths which were in course of erection, as well as by the crowded state of the hotels, and the consequent increase of prices for accommodation.

#### MECHANICAL LABOR.

*Rates of wages in Leipsic and vicinity in 1872.*

Trades.	Time.	Wages.
Blacksmiths .....	Per day .....	\$0 41 to \$0 92
Bricklayers .....	do .....	76 to 97
Cabinet-makers .....	do .....	65 to 72
Carpenters .....	do .....	76 to 92
Coopers .....	Per week .....	3 57 to 4 28
Machinists .....	do .....	3 57 to 4 28
Plasterers .....	do .....	4 28 to 5 71
Shoemakers .....	do .....	3 57 to 4 65
Stone-cutters .....	do .....	5 00 to 5 47
Tailors .....	do .....	3 57 to 4 65
Tanners .....	do .....	3 57 to 4 28
Tin-smiths .....	do .....	3 21 to 3 57
Wheelwrights .....	do .....	3 21 to 3 57

#### FARM LABOR.

Experienced hands in summer, per day, 65 cents; in winter, 60 cents.  
 Ordinary hands in summer, 60 cents; in winter, 57 cents.  
 Female servants, per month, \$1.70, with board.

## FACTORY LABOR.

The rates of wages in many of the manufacturing towns in the consular district of Leipsic appear, on previous pages, under the heading "Factory labor in Germany." The following information in regard to a glove-factory in Altenburg was furnished in a letter from the proprietors, under date of August 20, 1872:

## KID-GLOVE FACTORY, ALTENBURG, DUCHY OF SAXONY.

The number of workmen consists of 1,800 persons, men, women, and children, some 300 of whom are employed in the factories, while the remainder of them take the work to their homes.

The average weekly earnings are as follows:

Glove-makers, from 6 thalers, \$4.32, and upward.

Tanners, (kid,) 6 thalers, \$4.32.

Dyers, 4 to 4½ thalers, \$2.88 to \$3.24.

Day-laborers, 4 to 4½ thalers, \$2.88 to \$3.24.

Sewers, (children included,) 1 to 2 thalers, \$0.72 to \$1.44.

The usual hours of labor are from 6 a. m. to 7 p. m., with an interruption of half hour for breakfast, one hour for dinner, (at noon,) and half hour for luncheon, (at 4 p. m.)

It is difficult to give the exact amount of the expenses either of a family or of a single person; and a general rule in regard to the expenditures of the laboring classes cannot be accurately stated, as the outlay is governed by the income, which is usually all expended.

Although France has almost monopolized the production of goat-skin gloves, in which she excels, yet Germany manufactures to a large extent the medium qualities, which, being less expensive, are more readily sold. Germany was represented at the World's Exhibition at Vienna by many of its most important glove-manufacturers. Favorable local circumstances, enabling the manufacturer to combine tanning and dyeing with the production of gloves, and the introduction of new methods for perfecting the article, has conduced to make German gloves an important article of export. There are in the German Empire towns whose principal branch of industry is glove-making, such as Altenburg, above referred to; Halberstadt, in Prussia; Erlangen, in Bavaria; Arnstadt, in Thuringia; Haynau, in Silesia; and Esslingen, in Württemberg.

## DRESDEN, SAXONY.

The capital of the kingdom of Saxony is more celebrated for its art-treasures than for manufactures. Few European capitals contain a greater number of objects calculated to gratify a refined taste. Enriched with extensive collections of paintings and statuary, with museums of antique and modern art, libraries, and public gardens, it has become a favorite resort for the wealthy of all nationalities, large numbers of whom make it their place of permanent abode. It is a favorite residence of English and American families, and among its inhabitants may be found many men of learning and talent. Dresden gives its name to the renowned porcelain ware which is made in its vicinity, chiefly at Meissen, about 28 miles distant. Although manufactories and other industrial establishments have not hitherto been erected, yet, as the United States consul at that place states in his communication, "the steamships on the river Elbe, which divides the city into two parts, the old and the new, (Altstadt and Neustadt,) and which is navigable from a point a little above Prague in Bohemia to Hamburg on the German Sea, and the iron-horse on the land, were irresistible in opening even the city of Dresden, euphemistically called 'Elbe Athens,' to the inroads of an industrial era."

## DRESDEN-WARE.

China ware or porcelain was originally brought from the country after which it is named, and was first made in Europe at Meissen, in 1710, by

one Bötticher, an alchemist, who, after wasting a great deal of the gold of his patron (Augustus I, King of Poland and Elector of Saxony) in his search for the philosopher's stone, stumbled, by accident, upon a more sure method of producing the precious metals by the discovery of an art which has served to enrich his countrymen. This manufactory, so celebrated in the time of Augustus II, was annihilated in the "seven-years' war," being then plundered and its workmen and models carried away by Frederick the Great. It continued to enjoy royal patronage at a heavy expense to the private purse of the Saxon sovereign, but the king has lately ceded it to the government. It is now carried on for profit, and cheapness being the object, it now produces a revenue, but the articles made are very inferior to those of former times.

#### EXPORTS TO THE UNITED STATES.

That the market in the United States for the productions of the Dresden consular district is by no means extensive, will be shown by the following table:

*Statement showing the exports to the United States from the Dresden consular district during the year ended September 30, 1873.*

Description.	Value.	Description.	Value.
Drugs .....	\$37, 834	Musical instruments and merchandise	\$133, 781
Earthen ware and lava goods .....	68, 997	Photographic paper and paper goods.	44, 243
Glass ware .....	391, 388	Porcelain .....	25, 323
Gloves .....	75, 089	Toys and ornaments .....	28, 295
Hosiery .....	150, 455	Watch-movements .....	17, 970
Laces, embroideries, and trimmings .....	104, 209	Woolen and half-woolen goods .....	99, 110
Linon and half-linon goods .....	32, 509	Sundries .....	79, 993
		Total .....	1, 219, 995

The following information was furnished by Mr. Brentano, United States consul at Dresden, and although not classified under distinct headings, in uniformity with similar data from other manufacturing districts, yet it is deemed best in this instance to insert the report entire:

#### LABOR IN THE MANUFACTURING DISTRICTS OF SAXONY AND BOHEMIA.

Annaberg and the surrounding mountainous country, including Buchholz, carries on chiefly the manufacture of laces, gimps, guipures, fringes, gloves, &c.

Laces are made by women and girls in villages surrounding the before-named towns; good workers and such as have experience make from 2½ to 3 thalers (\$1.80 to \$2.16) a week, working fourteen hours a day; girls and old women do not exceed 1 to 1½ thalers (\$0.72 to \$1.08) a week.

Board is cheaper in the country than in town; working-girls pay about ¾ thaler (48 cents) a week; a family of five expends about 3 thalers, (\$2.16.)

Children in the country are obliged to attend school as regularly as those in town, but only three to four hours a day, and up to their fourteenth year.

Fringes, &c., are chiefly made in town, by men, women, and children, and they mostly work in their dwellings. The working-hours for men are from 7 to 12 a. m. and from 1 to 7 p. m., (eleven hours,) and they earn from 3 to 4 thalers (\$2.16 to \$2.88) a week. Women and children do the lighter part of this work; they labor fourteen hours a day and earn from 2 to 3 thalers (\$1.44 to \$2.16) a week. A family consisting of five members, (man, wife, and three children,) if diligent, can make about 7 thalers (\$5.04) a week.

Children attend school regularly five hours a day, from their sixth to their fourteenth year, inclusive.

Embroiderers, (girls,) who work in stores ten hours a day, earn from 2 to 2½ thalers (\$1.44 to \$1.80) a week.

Board and lodging for an unmarried laboring-man ranges from 1½ to 2 thalers, (\$1.08 to \$1.44;) for a girl, 1 thaler (72 cents) a week. A family consisting of five members generally uses up the earnings of a week, *i. e.*, 7 thalers, (\$5.04.)

*Gloves.*—A good glove-knitter, working twelve hours a day, may earn 7 to 8 thalers (\$5.04 to \$5.76) a week; girls working in the factory ten hours a day make 2½ to 3 thalers (\$1.80 to \$2.16) a week. Girls who sew at home and work twelve hours a day earn 1½ to 2 thalers (\$1.08 to \$1.44) a week. Children are not employed in glove-making.

Markneukirchen, as well as the villages and small towns around it, form a district in the southwest corner of Saxony, where a specialty is made of the manufacturing of musical instruments of various descriptions.

There are only men employed in these manufactories. They work eleven hours a day, and earn during that time from 22½ groschen to 1 thaler, (54 to 72 cents,) *i. e.*, 4½ to 6 thalers (\$3.24 to \$4.32) a week.

The expenses of a married laborer for rent may be estimated at 30 to 40 thalers (\$21.60 to \$28.80) a year. Unmarried workingmen pay from 2½ to 3½ thalers (\$1.80 to \$2.52) for board and lodging a week.

Children are obliged to attend school from the seventh to their fourteenth year, but there are advantages offered for further improvement.

Olbernhau, Zschoppau, Waldkirchen, &c., is a district in Saxony where, chiefly, toys are manufactured.

Men working in these toy-factories, either by the piece or by the hour, (twelve hours a day,) earn from 3 to 5 thalers (\$2.26 to \$3.60) a week.

Women and girls working on the same conditions make from 2 to 3 thalers (\$1.44 to \$2.16) a week.

Children work eight hours a day—the remaining four hours being devoted to their school—and receive 1 thaler (72 cents) a week. They cease attending school when fourteen years old.

Board and lodging for an unmarried man ranges from 1.20 to 1.25 thalers (\$1.24 to \$1.32) a week; for an unmarried woman or girl, from 1.05 to 1.10, (84 to 96 cents.)

Freiberg, a town of about 20,000 inhabitants, 1,200 feet above the level of the sea, known for its excellent Mining Academy, has also one of the largest manufactories of gold and silver laces, trimmings, fringes, sandal laces, &c., in Saxony, probably in all Germany.

Here, as well as in all other manufacturing districts of Saxony, most of the work is done by the laborers in their dwellings; in this instance chiefly that of wire-drawing, fringe-making and lace-making. The latter work is usually performed by married women and their grown daughters, and as they have also to perform their household duties, it is difficult to give a certain number of hours for their working time.

The wages of employes in this branch of manufacturing are as follows:

1. Men who work in the manufactory 12 hours a day receive from 2.15 to 3.25 thalers (\$1.80 to \$2.76) a week.

2. Wire-drawers working at home make from 4 to 8 thalers (\$2.88 to \$5.76) a week.

3. Fringe-makers who also work in their dwellings earn from 3.20 to 5 thalers (\$2.64 to \$3.60) a week.

4. Girls who either spin or embroider work on machines in the manufactory, 12 hours a day, earn from 1 to 2 thalers (\$0.72 to \$1.44) a week.

5. Lace-makers, (married women,) working in their homes, earn from  $\frac{1}{2}$  to  $1\frac{1}{2}$  thalers (\$0.24 to \$0.84) a week.

In regard to board and lodging it may be said that girls usually live with their parents and pay nothing, their earnings being so little.

Unmarried men pay annually for rent from 15 to 20 thalers, (\$10.80 to \$14.40.) Generally the expenses for living may be considered the same as stated in the districts of Markneukirchen and Annaberg.

*The glass-manufacturing district of Northern Bohemia.*

Workmen in this branch of manufacturing are divided into two classes, viz: class A, those who live in their own dwellings and do the polishing, painting, gilding, and the lower kind of engraving; and class B, those who work in establishments or *ateliers*. The former do not keep certain hours, but work as they please, and earn, according to the demand for labor, from 9 to 15 florins (\$3.60 to \$6) a week, while the latter adhere to a working time of 8 hours a day, and receive a fixed pay, which varies, according to their abilities, from 12 to 20 florins (\$4.80 to \$8) a week.

Women are only employed for polishing the glass and gilding, and for packing the goods, and earn from 3 to 5 florins (\$1.20 to \$2) per week.

Children are not employed until they are fourteen years of age, and, consequently, free from school duties. After that time they are apprenticed as painters or engravers, these being the easiest employments. They are obliged to serve four years, unless the apprentice has the means to pay to his master board and lodging for the first year; in that event he serves only three years.

There is a great difference in the habits and in the social standing and enlightenment of these work-people, which, in fact, is indicated by the kind of labor which they perform.

The people belonging to class A are, if I may term it so, a rough class, and have to subsist on 6 florins (\$2.40) per week for each family.

Those belonging to class B, among whom are found real artists, and who also live (not work) in their own dwellings, cannot support their families upon less than from 15 to 20 florins (\$6 to \$8) a week.

Unmarried men of class B pay from 6 to 10 florins (\$2.40 to \$4) a week for board and lodging.

MECHANICAL AND FARM LABOR.

*Statement showing the wages of skilled and other workmen in Dresden, Saxony.*

Occupations.	Per day.	Per week.
<b>Skilled workmen:</b>		
Blacksmiths .....	\$0 60 to \$0 84	\$3 60 to \$5 04
Bricklayers or masons .....	60 to 34	3 60 to 5 04
Cabinet-makers .....	72 to 96	4 32 to 5 76
Carpenters .....	72	4 32
Coopers .....	72	4 32 to 5 76
Machinists .....	60 to 84	3 60 to 5 04
Painters .....	54 to 72	3 24 to 4 32
Shoemakers .....	72	4 32
Tailors .....	72	4 32
Tin-smiths .....	48 to 72	2 88 to 4 32
<b>Farm-hands:</b>		<i>Per month.</i>
Experienced hands .....	48	7 20
Ordinary hands .....	36	5 40
Common labor, (not farm) .....	24	
Female servants .....		2 16 to 3 60



## FRANKFORT-ON-THE-MAIN.

Frankfort, formerly a free town, was the seat of the German Diet down to the year 1866, when it was annexed to Prussia. It lies on the right bank of the Main, and is connected by a stone bridge with the suburb of Sachsenhausen on the left bank. In 1871 it had 90,748 inhabitants, of whom 3,000 were Jews. Many of the houses in the new town, especially in the principal street, called Zeil, in the Neue Mainzer and Taunus-Strasse, and on the quays facing the Main, inhabited by rich merchants, bankers, or diplomatists, are palaces. Nothing is more pleasing here than the belt of boulevard gardens, replacing the ramparts and studded with handsome detached villas.

The old town, on the other hand, with its narrow streets and quaint wooden buildings, with gables overhanging their basement-stories, forms a complete contrast to the new. Many of the houses are of great antiquity, especially in the quarter around the cathedral and Römerberg, and preserve all the characteristics of "the ancient imperial free city."

Frankfort has long been the financial metropolis of continental Europe; the cradle of the Rothschilds. In the Jews' quarter the old house, so long occupied by the family, and where the grandmother of the present Baron Rothschild died in a recent year, was standing in 1872.

*Exports to the United States.*

The following statement shows the exports to the United States from the consular district of Frankfort-on-the-Main for the fiscal year ended June 30, 1873:

Articles.	Value.	Articles.	Value.
Leather, hides, and skins .....	\$453, 131 35	Mineral-water .....	\$6, 999 93
Hares' and hatters' fur .....	183, 036 57	Frankfort printing-black .....	8, 939 11
Jewelry, precious and imitation stones .....	186, 599 28	Perfumery and soap .....	3, 621 37
Wine, brandy, beer, and cider .....	139, 186 46	Type and copper matrices .....	2, 338 43
Linen, woolen, and cotton goods .....	173, 171 79	Emery-stones .....	1, 497 33
Human hair and hair works .....	97, 323 08	Seed .....	10, 741 56
Leather goods .....	8, 457 98	Macaroni .....	64, 141 11
Silk and silk goods .....	37, 635 59	Cigar-molds .....	7, 443 65
Fancy goods .....	3, 299 53	Earthen ware .....	5, 499 25
Iron, hardware, iron goods, and machines .....	16, 516 53	Shoe and horn buttons .....	5, 948 55
China and glass ware .....	24, 842 40	Hops .....	10, 390 90
Pipes .....	14, 080 30	Prunes, fruit-juice, and dried fruit .....	31, 490 11
Drugs, chemicals, and dyes .....	42, 924 38	Marble blocks .....	2, 217 39
Glue .....	9, 964 45	Quincallerie .....	16, 663 33
Kid gloves .....	34, 857 71	Toys .....	1, 497 14
Stationery, paper, books, prints, &c. ....	17, 467 81	Sundries .....	3, 953 94
Cement .....	2, 227 44	Total .....	1, 628, 034 97

## RATES OF WAGES IN 1874.

The advance in the prices paid for labor in Frankfort and vicinity, especially in building-trades, is thus stated by Hon. W. Prentiss Webster, United States consul-general:

There has been a great advance in the rates of labor and a corresponding increase in the prices of rent and provisions. There is now going on in nearly every city of Germany an immense and wholly unparalleled amount of building, as well as many public improvements, such as water-works, sewers, and similar undertakings. This great amount of work in cities has drawn not only the men and boys from all the villages, leaving the women to do the work in the country, but has also drawn thousands of skilled laborers from the northern part of Italy, who find employment as masons, carpenters, painters, and some as laborers. Still the supply of labor does not equal the demand.

*Daily wages of skilled workmen in the building-trades.*

Trades.	Wages.
Bricklayers or masons .....	\$1 00 to \$1 20
Carpenters .....	80 to 1 20
Painters .....	80 to 1 00
Plasterers .....	1 00 to 1 20
Stone-cutters .....	1 20 to 1 60

*Daily wages of farm-laborers and others.*

	With board.	Without board.
Experienced hands .. { Summer .....	\$0 40 to \$0 70	\$0 80 to \$1 00
{ Winter .....	30 to 50	60 to 80
Ordinary hands .....	30 to 70	70 to 80
Common laborers at other than farm-work .....		70 to 80
Female servants .....	2 60 to 8 00 per month.	

*Weekly wages of skilled workmen in the city of Frankfort and in the neighboring town of Offenbach.*

(The florin computed at 40 cents, United States gold.)

Occupations.	Frankfort.	Offenbach.
Bakers, (including board) .....	\$4 00 to \$8 00	\$2 80 to \$3 60
Bonnet-makers .....	4 00 to 5 20	2 80 to 3 60
Bookbinders .....	4 20 to 4 80	4 80 to 8 00
Brasiers .....	6 00 to 8 00	4 80 to 6 40
Carpenters .....	5 20 to 6 00	4 80 to 6 00
Cigar-makers .....	4 00 to 4 80	4 00 to 4 80
Confectioners, (including board) .....	4 00 to 6 00	2 80 to 3 60
Coopers .....	4 80 to 7 20	5 60 to 6 40
Engravers .....	4 90	4 80 to 7 20
Farriers .....	4 80 to 6 00	3 20 to 4 00
Goldsmiths .....	6 40 to 8 00	
Joiners .....	6 00 to 7 20	4 80 to 8 00
Kettle-makers .....	4 80 to 6 00	6 40 to 7 20
Leather-dressers .....	8 40 to 9 60	6 00 to 7 20
Machinists .....	6 00 to 9 60	4 80 to 10 00
Marble-cutters .....	7 20 to 9 60	5 60 to 7 20
Marble-polishers .....	5 00 to 6 00	5 60 to 7 20
Masons .....	*7 20 to 8 40	4 80 to 6 00
Painters, house .....	4 80 to 6 00	6 00
Printers .....	4 80 to 6 00	5 60 to 7 20
Proof-readers .....	7 20 to 8 40	
Pump-makers .....	7 20 to 9 60	5 00
Saddlers .....	4 80 to 6 00	4 00 to 4 80
Shoemakers .....	*4 20 to 6 00	4 00 to 4 80
Slaters .....	6 00 to 7 20	4 80 to 6 00
Stone-cutters .....	7 20 to 9 60	5 60 to 7 20
Tailors .....	4 20 to 6 00	4 00 to 6 00
Trunk-makers .....	4 80 to 6 00	4 00 to 4 80
Upholsterers .....	4 80 to 6 00	4 00 to 5 00
Waiters, (including board) .....	7 20 to 9 60	4 80 to 7 20
Waiters in hotels, (including board) .....	4 00 to 8 00	2 80 to 6 40
Watchmakers .....	4 80 to 6 00	4 80 to 6 40
Workmen, unskilled .....	4 20 to 4 80	2 80 to 4 80

\* On piecework.

## STUTTGART, WÜRTEMBERG.

The manufacture of textile fabrics, chiefly of cotton and of half wool, of gold and silver articles, gloves, leather, and musical instruments, constitutes the principal industries of this famed city. The cotton-spinning manufactories employ upward of 270,000 spindles and 3,850 operatives. The number of power looms employed in weaving cotton tissues has increased since the year 1861 from 2,250 to 3,000; the number of hand-looms in use is about 12,500.

The value of the annual production of cotton fabrics was estimated

in the year 1861 at upward of \$5,000,000. Stuttgart, although by no means equal to Leipsic, yet holds a high position in the book-trade, having numerous book-selling establishments. The Stuttgart book-trade is reputed to produce annually \$1,500,000.

### LABOR IN WÜRTTEMBERG IN 1872.

Unable from a want of time to visit any part of this kingdom, the author availed himself of the proffered services of Mr. J. Oberndorf, formerly of Baltimore but now a resident of Stuttgart, to procure information in regard to the cost of labor and of provisions. The following statement not only gives the prices of both at different periods, but their absolute and relative increase. It is gratifying to learn that as compared with 1830 the advance in wages has been greater than in the necessities of life, and the condition of the working classes has been consequently improved.

STUTTGART, September, 1873.

The feeling of security since the close of the great German-French war, and the general belief in the probability of a lasting peace, have given a great impetus to the development of industrial enterprise in Germany during the past few years, and the increased demand for labor has resulted in a considerable advance in the rates of wages. Tables given below are based on reliable information obtained during the autumn of 1872, from manufacturers, mechanics' unions, and official authorities all over Württemberg, and are compared with those given in the report of the chamber of commerce for the year 1865. They are the average wages paid to adult males:

#### I.—Wages in factories, (by decades.)

Industrial establishments.	1830-'39.	1840-'49.	1850-'59.	1860-'65.	1872.
Cotton-spinning .....	\$0 27	\$0 30	\$0 33½	\$0 44	\$0 56
Cotton-weaving .....	25½	27	32	40	55
Wool-spinning .....	28	28½	37	44	62
Woolen-cloth factories .....	26½	28	33½	44	51½
Chemicals .....	23½	27	39½	38	46
Paper .....	24	27	33	38	53
Wall-papers .....	28	39	36	48	60
Silver-ware .....	43½	47	57	70	80
Jewelry .....	40	47	50	64	97½
Pianos .....	36	41½	50½	64	97
Cutlery .....	27	32	40	44	58
Japanned tin-ware .....	36	46	56	60	70
Printing .....	44	50	50	67	97½

NOTE.—The prices in this and subsequent statements were given in florins, which have been computed at 40 cents.

#### II.—Daily wages of mechanics, (by decades.)

Occupations.	Württemberg.					City of Stuttgart.
	1830-'39.	1840-'49.	1850-'59.	1860-'65.	1872.	1872.
Blacksmiths .....	\$0 23½	\$0 27	\$0 37	\$0 42	\$0 51	\$0 70
Bricklayers and masons .....	27½	31	37	52	63½	68
Carpenters .....	27½	30	36	49	61½	64
Coppersmiths .....	25½	29	33½	42	61½	67
Cutlers .....	26	29	33½	40	51½	60
Dyers .....	27½	31½	37	42	51	60
Harness-makers .....	24	27½	32	38	55½	60
House-painters .....	37	43	52	66	78	96
Joiners .....	25	28	33	40	55½	60
Laborers on public works .....	24	24	28	34	47	70
Locksmiths .....	26	28	33	41	55	69
Shoemakers .....	21	23	28	34	48	58
Stone-masons .....	34	39	47	64	88	1 40
Tailors .....	21½	24	29½	34½	52	60
Tanners .....	28	30	35	41	53	60
Tinners .....	25½	28	33½	39½	60	60
Turners .....	24	25½	31½	36	53	60
Average for factory hands, (male adults)	31½	35½	41½	51½	67½	67½
Average for mechanics, (male adults) ...	26	29½	34½	42½	59½	69½

The former custom of journeymen and apprentices boarding and lodging with their employers is, as a general thing, only kept up yet in the country; in the larger cities only exceptionally. Where board and lodging are given, it is calculated at the average rate of 28 kreutzers (18½ cents gold) per day.

Wages of masons and other mechanics employed in house-building, especially in the city of Stuttgart, have increased more than that of other trades on account of the extraordinary growth of the city and the consequent demand for masons, bricklayers, carpenters, painters, &c.

At present a good stone-mason can earn about 5 florins per day in Stuttgart. This is of importance to the neighboring villages, who furnish a considerable proportion of these workingmen. As a consequence agricultural pursuits are more neglected, and the tilling of the soil left more to the female part of the family, because the father, with his sons, finds employment in the stone-quarries much more profitable. The vine-culture in these places suffers from the same cause.

It is to be regretted that the fondness of drink, (although generally only of beer and not of stronger beverages,) prevents the working people from saving any considerable part of their now relatively-good earnings.

The percentage of increase in the rates of wages was as follows:

Classes.	In 1873 as compared with 1850-'59.	In 1873 as compared with 1860-'65.
<b>I.—Factories:</b>	<i>Per cent.</i>	<i>Per cent.</i>
Cotton-spinning.....	107	96
Cotton-weaving.....	132	37
Wool-spinning.....	129	41
Woolen-cloth factories.....	92	17
Chemicals.....	97	21
Paper.....	117	37
Wall-papers.....	114	25
Silver-ware.....	65	14
Jewelry.....	143	52
Pianos.....	168	52
Cutlery.....	95	18
Japanned tin-ware.....	94	17
Printing.....	121	46
The average advance paid to men employed in factories.....	114	31
<b>II.—Mechanics:</b>		
Dyers.....	85	21
Tanners.....	88	30
Stone-masons.....	159	53
Bricklayers and other masons.....	132	22
Builders and carpenters.....	130	26
House-painters.....	113	18
Blacksmiths.....	137	45
Locksmiths.....	110	34
Coppersmiths.....	142	46
Cutlers.....	77	28
Tinners.....	137	52
Tailors.....	151	50
Boot and shoe makers.....	139	41
Harness-makers.....	131	46
Joiners.....	124	38
Turners.....	119	46
The average advance paid to mechanics.....	124	37
<b>III.—Day-laborers on public works.....</b>	<b>133</b>	<b>37</b>

But this advance has not entirely contributed to improve the condition of the working classes, as on the other hand the prices of the necessities of life have advanced in a similar ratio. The price of dwellings in Stuttgart has advanced within the last ten years from 50 to 75 per cent. In the country the advance has been comparatively small. Now, let us see the advance in the price of bread, meat, beer, and firewood:

Years.	Average prices per 100 pounds (which is 1½ per cent. less than the hundred-weight in America, the latter being equal to 101.60475 German pounds) of—				Average prices per pound of—		
	Spelt.	Grain.	Rye.	Barley.	Beef.	Pork.	Vend.
1833-'42.....	\$1 33	\$1 85½	\$1 29	\$1 37½	\$0 05.8	\$0 05.47	\$0 05
1856-'65.....	1 73	2 47	1 79	1 06	9.03	9.07	7.93
1872.....	2 21½	3 11	2 25½	2 06	14.67	14.67	14

*Advance in 1872.*

Years.	On spelt.	On grain.	On rye.	On barley.	On beef.	On pork.	On vend.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
1872 compared with 1833-'42 ..	66	67	75	50	153	166	160
1872 compared with 1856-'65 ..	28	26	26	24	61	62	75

Years.	Average advance in the price of—	
	Breadstuffs.	Meat.
	<i>Per cent.</i>	<i>Per cent.</i>
From 1833-'42 until 1872 .....	65	167
From 1856-'65 until 1872.....	26	66

The prices of beer and of fire-wood were as follows:

Years.	1 schoppen beer = 0.44 liter.	1 cord wood = 141 württ. cubic feet = 31.3860 württ. cubic meters.	
		Hickory.	Pine.
1830-'39.....	\$0 01.17	\$6 90	\$5 20
1860-'65.....	1.67	9 40	6 40
1872.....	2.27	11 60	6 80

This makes the average advance in 1872:

Years.	On beer.	On hickory wood.	On pine wood.	On pine and hickory wood to- gether.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Compared with 1833-'42.....	94	68	31	50
Compared with 1856-'65.....	36	23	6	15

The advanced prices of fire-wood have caused the consumption of coal and coke to assume much larger proportions. These are preferred by all whose first object is

economy, as they are much cheaper than wood, and many of the old-fashioned wood-stoves now take the place of coal-stoves even in the country.

If we put together, for purposes of comparison, the **ADVANCE** of wages and of the price of bread, meat, beer, and wood, we obtain the following result:

Years.	Wages of mechanics and in factories.	Breadstuffs.	Meat.	Beer.	Wood.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
From 1830-'39 or 1833-'43 to 1872.....	119	65	167	94	50
From 1860-'65 or 1856-'65 to 1872.....	34	96	66	36	15

Compared with 1830, the advance of wages has been greater than the advance in the prices of the necessities of life; so in general, and especially with some of the branches of trade, the condition of the working-classes has experienced a considerable amelioration.

### INDUSTRY OF WÜRTENBERG IN 1871.

The following information in regard to labor in Würtemberg in the years 1870 and 1871, before the advance in the rates of wages resulting from the termination of the Franco-German war had taken place, is condensed from the British consular reports:

Out of a population of 1,748,328 inhabitants, 50 per cent. are employed in agriculture, and 269,077 in other kinds of industry. These last are distributed as follows:

Classes.	Employed in—		Total.
	Manufactures and handicrafts.	Commerce and carrying-trade.	
Employers and overseers.....	111, 330	21, 719	133, 049
Workmen.....	111, 144	9, 033	120, 167
Workwomen.....	13, 741	2, 120	15, 861
Total.....	236, 215	32, 862	269, 077

It has been calculated that the capital of the nation, by aid of the laboring population, returns a revenue of 10 per cent.

The following statistics will help to give a further idea of the mode in which labor is distributed among the different branches:

Forty-four thousand three hundred and forty-four persons are employed in the preparation of food. The principal establishments in this class of manufactories are—

Grain-mills .....	2, 084
Distilleries.....	18, 000
(N. B.—Of this number only 55, or 66 per cent., are at present at work.)	
Breweries.....	2, 367
Chicory manufactories.....	4
Beet-root sugar manufactories .....	5

Four establishments, employing 325 hands and 5,200 spindles, are engaged in spinning flax. Linen is mostly hand-woven in Würtemberg. This trade employs 19,507 workmen and 19,379 looms. The number of power-looms in present use is 27.

Seventy-five establishments are engaged in spinning woolen yarn, employing, in the aggregate, 60,000 spindles and 2,200 workmen.

Three manufactories for carding wool, employing 20,000 spindles and 13,500 workmen. Seventy-four, working with 527 hand and 31 power looms, and employing 1,114 hands, are employed in the manufacture of woolen tissues.

Twenty-two, working with 444 hand and 45 power looms, and occupying 836 workmen, are engaged in the manufacture of flannels and mixed stuffs.

There are upward of sixty manufactories employed in Würtemberg in the construction of machines; six of these engaged on metals in the construction of locomotives.

Thirty-four establishments are engaged in working precious metals. Besides these, there are many large factories working in all classes of iron, bronze, and zinc manufactures, and employing a large portion of the industrial population, the number of which does not appear in the official returns published.

The present average rate of wages may be generally stated as follows:

## WAGES IN TOWNS.

For the most ordinary class of labor, 40 cents to 48 cents per day, or \$2.40 to \$2.88 per week; while skilled labor in the higher branches of industry, *e. g.*, of an engine-builder, or first-class machanic, commands as high as \$6 to \$8 a week.

The worst paid labor is that of journeymen tailors and cobblers. On the occasion of a threatened strike of cobblers in May, 1870, it was represented that the rate of payment for piecework was so low that it was impossible, even by working fourteen and fifteen hours a day, to earn more than four or five florins (\$1.60 to \$2.00) per week. The masters maintained that good work could obtain double that amount of wages. They, however, agreed to raise their former wages from 15 to 25 per cent.

## WAGES IN THE COUNTRY.

Wages vary considerably, according to the time of year. In winter labor is very cheap; while in summer, and particularly during the harvest time, it will command even higher wages than in towns. Instances are not rare where as much as 75 cents and 78 cents a day have been paid for day laborers. When in receipt of equal wages, the position of the country laborer is naturally far better than that of the workman in town; his wants being much more easy to supply, especially in the item of lodging, the rent of which is very high in the larger towns, and constantly on the increase. A married workman in Stuttgart has, at the present moment, to pay from \$35 to \$50 a year for a lodging consisting of two rooms and a kitchen, while in the country he could easily lodge himself for half that sum.

The rates of wages in factories vary according to the distance of the factories from the capital. In the cotton-spinning manufactory near Eeslingen, about four miles from Stuttgart, the wages for a good male spinner vary from 36 cents to 75 cents a day; a good female hand receives 36 cents a day. The working hands in this establishment have the advantage of procuring excellent lodgings built by their employers, and consisting of four good rooms each, with kitchen and cellar, at the moderate rent of from \$20 to \$30 a year.

In the calico manufactory at Heidenheim, the present rates of wages are 37 cents a day for a male hand, and 22 cents for women's and children's labor. It may be observed, however, that Heidenheim is situated in one of the cheapest districts of Würtemberg, and the purchasing power of wages is accordingly higher than in other parts of the country. Wages in this factory have increased 12 per cent. since 1865, and 4 per cent. in the last year.

The most marked rise in wages is in the building trade in Stuttgart. This business was one of the first to suffer at the outbreak of the war; but within the last year it has received such an impetus as to have affected the price of labor in various other branches of industry, and over a very extended radius.

The following rates of daily wages of workmen employed by the Stuttgart Building Society was furnished by the secretary of the society:

Class of laborers.	Amount.	Class of laborers.	Amount.
Ditchers and diggers .....	\$0 66	Locksmiths .....	\$0 66
Bricklayers .....	79	Blacksmiths .....	54
Ordinary laborers, hodmen .....	58	Potters .....	58
Ordinary laborers, boys .....	45	Tinmen .....	66
Masons .....	91	House-painters .....	63
Carpenters .....	72	Room-painters .....	83
Plasterers .....	1 00	Upholsterers .....	54
Joiners .....	66	Faviors .....	63
Glaziers .....	62		

## BAVARIA.

Interesting as a visit to Bavaria, and especially to its art-renowned capital, would have been, its manufacturing industries were not sufficiently varied and extensive to induce the author to depart from his prescribed route through the manufacturing towns of the continent. The population of Bavaria is principally engaged in agricultural pursuits. Its manufactures are chiefly connected with science and the fine arts. They comprise philosophical instruments, paint colors, lithographic-stones, gold and silver leaf, carriages, and cloth-stuffs. It is

noted particularly for its breweries, of which there are five thousand six hundred, making one hundred million gallons of beer annually, mainly consumed within the country. Nearly two-thirds of the revenue of the state is derived from this source. Next to beer, coarse linen is the most important product of manufacturing industry, and of late years a number of cotton-factories have been erected. Leather is somewhat extensively manufactured, as are also paper, articles of straw and wood, porcelain, glass, nails, needles, jewelry, beet-root sugar, and tobacco.

Munich, it is true, has some eminently good iron, bronze, and bell foundries, but its chief glory consists in its fine galleries of paintings and sculpture. It owes its prosperity chiefly to the amount of court-favor bestowed upon it. Within the last fifty years this town, as a focus of artistic activity, has been largely developed, and its material prosperity augmented in a proportionate degree; and now there are few, if any, towns in Europe, of the same size, which contain so many public edifices and institutions devoted to the purpose of art and science, as this, the capital of Bavaria, and the acknowledged metropolis of Southern Germany. It has a university with seventeen hundred students, and a library containing 147,000 volumes and 5,294 manuscripts. Twelve newspapers are published in the town. Its porcelain is exported, like that of Dresden, to different parts of Europe.

#### AGRICULTURAL LABOR IN GERMANY.

Professor Dr. Freiherr v. d. Goltz, of Königsberg, who has undertaken the elaboration of the "Investigation into the condition of the rural laborers in Germany," initiated by the congress of German agriculturists, has recently published, in the *Concordia*, preliminary tables of the wages usually paid to agricultural laborers in different parts of Germany. These tables refer to such laborers only as, although not under contract-obligations, are steadily employed during the whole year, earning no other emoluments. The rates of wages for summer and winter represent the average of all reports received, aggregating nearly one thousand four hundred, so that each amount in the seventy-three classes enumerated below represents the mean of nearly twenty reports.

*Statement showing the daily wages in summer and winter, respectively, of agricultural laborers in the under-mentioned 73 districts of Germany, in the year 1874.*

[30 silbergroschen = 1 thaler = 72 cents, United States gold.]

Districts.	Places.	In summer.	In winter.	Average.
<b>Province of Prussia:</b>				
1	District of Gumbinnen .....	\$0 26. 40	\$0 16. 80	\$0 21. 60
2	District of Königsberg .....	31. 68	19. 68	25. 68
3	District of Dantzic .....	32. 60	21. 60	27. 10
4	District of Marienwerder .....	34. 32	21. 36	27. 84
	<b>Average .....</b>	<b>31. 25</b>	<b>19. 86</b>	<b>25. 55</b>
<b>Province of Pomerania:</b>				
5	District of Cöslin .....	33. 84	26. 40	30. 12
6	District of Stettin .....	39. 36	28. 04	31. 20
7	District of Stralsund .....	57. 84	29. 52	43. 68
	<b>Average .....</b>	<b>43. 68</b>	<b>26. 40</b>	<b>35. 04</b>
<b>Province of Posen:</b>				
8	District of Bromberg .....	38. 88	21. 12	30. 00
9	District of Posen .....	27. 84	18. 24	23. 04
	<b>Average .....</b>	<b>33. 36</b>	<b>19. 68</b>	<b>26. 52</b>



Statement showing the daily wages in summer and winter, &amp;c.—Continued.

District	Places.	In summer.	In winter.	Average.
<b>Province of Brandenburg:</b>				
10	District of Potsdam .....	\$0 42	\$0 26.88	\$0 34.44
11	District of Frankfort-on-the-Oder .....	33.12	24.24	28.68
	Average .....	37.56	25.56	31.56
<b>Province of Silesia:</b>				
12	District of Liegnitz .....	24.96	18.96	21.96
13	District of Breslau .....	23.52	17.76	20.64
14	District of Oppeln .....	18.96	14.64	16.80
	Average .....	22.48	17.12	19.80
<b>Province of Saxony:</b>				
15	District of Merseburg .....	36.72	28.32	32.52
16	District of Magdeburg .....	41.76	29.28	35.52
17	District of Erfurt .....	26.88	22.80	24.84
	Average .....	35.12	26.80	30.96
<b>Province of Hanover:</b>				
18	District of Hanover .....	36.72	30	33.36
19	District of Hildesheim .....	34.80	29.28	32.04
20	District of Lüneburg .....	42	31.44	36.72
21	District of Osnabrück .....	30.12	24.36	27.24
22	District of Aurich .....	43.92	31.92	37.92
23	District of Stade .....	52.08	36	44.04
	Average .....	41.44	32.16	36.80
24	Province of Schleswig-Holstein .....	48.24	31.68	39.96
<b>Province of Westphalia:</b>				
25	District of Münster .....	39.60	31.68	35.64
26	District of Minden .....	32.16	28.08	30.12
27	District of Arnsberg .....	51.84	39.36	45.60
	Average .....	41.28	33.12	37.20
<b>Province of Rhenish Prussia:</b>				
28	District of Düsseldorf .....	47.76	37.20	42.48
29	District of Cologne .....	42.72	32.88	37.80
30	District of Aix-la-Chapelle .....	45.12	33.60	39.36
31	District of Treves .....	43.68	32.40	38.04
32	District of Coblenz .....	34.80	29.28	32.04
	Average .....	42.72	33.12	37.92
33	Province of Hesse-Nassau .....	38.64	30.72	34.68
34	Principality of Waldeck .....	31.20	24	27.60
35	Principality of Lippe-Detmold .....	36	24	30
36	Hanseatic city Bremen .....	66.24	48	57.12
37	Grand-duchy of Oldenburg .....	50.40	36	43.20
38	Hanseatic city Lübeck .....	39.60	28.80	34.20
39	Duchy of Lauenburg .....	38.88	25.68	32.28
40	Grand-duchy of Mecklenburg .....			32.40
41	Duchy of Brunswick .....	37.20	31.68	34.44
42	Duchy of Anhalt .....	30	26.16	28.08
43	Grand-duchy of Saxe-Weimar .....	33.12	23.52	28.32
44	Duchy of Saxe-Coburg-Gotha .....	34.80	26.88	30.84
45	Duchy of Saxe-Altenburg .....	35.52	26.88	31.20
46	Duchy of Saxe-Meiningen .....	27.36	22.08	24.72
<b>Kingdom of Saxony:</b>				
47	District of Leipzig .....	40.08	28.32	34.20
48	District of Dresden .....	43.68	31.20	37.44
49	District of Zwickau .....	39.84	28.56	34.20
50	District of Bautzen .....	31.20	26.08	28.64
	Average .....	38.45	28.65	33.65
<b>Kingdom of Bavaria:</b>				
51	District of Palatinate .....	39.84	32.64	36.24
52	District of Lower Franconia .....	33.84	24.24	29.04
53	District of Middle Franconia .....	30.72	23.52	27.12
54	District of Upper Franconia .....	34.80	21.36	28.08
55	District of Upper Palatinate and Regensburg .....	28.32	23.04	25.68
56	District of Lower Bavaria .....	37.68	30.96	34.32

*Statement showing the daily wages in summer and winter, &c.—Continued.*

Districts.	Places.	In summer.	In winter.	Average.
57	District of Upper Bavaria .....	\$0 44. 88	\$0 33. 36	\$0 39. 12
58	District of Swabia and Newburg .....	47. 76	34. 08	40. 92
	Average .....	37. 93	27. 81	32. 52
	Kingdom of Württemberg:			
59	District of Neckar .....	49. 92	38. 64	44. 28
60	District of Jaxt .....	40. 32	29. 76	35. 04
61	District of Danube .....	44. 64	34. 08	39. 36
62	District of Black Forest with Hohenzollern .....	43. 44	29. 76	36. 60
	Average .....	44. 58	33. 06	38. 82
	Grand-duchy of Baden:			
63	Valley of the Lower Rhine .....	43. 20	35. 28	39. 24
64	Valley of the Upper Rhine .....	46. 80	37. 90	42
65	Lower Mountains .....	37. 90	29. 52	33. 36
66	Upper Mountains .....	49. 20	38. 16	43. 68
67	Surroundings of Lake Constance .....	44. 40	36. 24	40. 32
	Average .....	44. 16	35. 28	39. 72
	Grand-duchy of Hesse-Darmstadt:			
68	Province of Starkenburg .....	38. 64	30. 94	34. 44
69	Province of Rhenish Hessa .....	30. 86	30. 96	30. 91
70	Province of Upper Hessa .....	37. 44	26. 68	32. 16
	Average .....	35. 68	29. 36	32. 52
	Alsace-Lorraine:			
71	District of Lower Alsace .....	46. 80	39. 60	43. 20
72	District of Upper Alsace .....	49. 92	41. 76	45. 84
73	District of Lorraine .....	52. 08	36. 96	44. 52
	Average .....	49. 60	39. 44	44. 52

### PRICES OF BREADSTUFFS IN WÜRTTEMBERG.

*Statement showing the average prices of breadstuffs in Württemberg in the years from 1833 to 1873.*

The lowest prices occurred in the years—

	1836.	1841.
Wheat .....	\$3 78	.....
Spelt .....	1 62	.....
Rye .....	2 58	.....
Barley .....	.....	\$2 24
Oats .....	.....	1 42

The highest prices occurred in the years—

	1847.	1854.	1873.
Wheat .....	\$9 97	\$10 26	\$8 99
Spelt .....	4 27	3 90	3 60
Rye .....	7 11	8 12	6 34
Barley .....	6 08	6 23	6 29
Oats .....	2 80	3 02	2 93

\* One scheffel = 5.028 bushels.

The high prices in 1873 are the result of the small harvest in 1872, and a decidedly poor harvest in 1873, together with a sinking price of gold during the last years.

*Average prices of other provisions.*

	1872.	1873.
Pease .....	\$3 52	\$3 74
Lentils.....	3 59	3 82
Beans.....	3 31	3 38
Potatoes .....	77	87
Hay.....	58	57
Straw.....	45	42
<b>MEATS.</b>		
Beef, (fat).....	14	15.3
Beef .....	12. 6	13.3
Cow .....	12	12. 6
Pork.....	14	15.3

## II.—COST OF LIVING IN GERMANY.

The rates of wages in manufacturing establishments in various parts of Germany, also of mechanics and farm-laborers, which obtained in 1872, when a personal investigation was made, as well as in previous and subsequent years, are presented in the preceding pages in such variety and to such extent as to indicate not only the absolute cost of labor in that country, but the relative rates as compared with those of other portions of continental and insular Europe, and with those of the United States. A just comparison with the latter country cannot, however, be made unless the purchasing power of the wages be ascertained; for, if a machinist in Berlin earn ten thalers (\$7.20 gold) per week, and another of equal skill in Philadelphia receives \$12 in gold, it would be manifestly incorrect to say that the American earned 66 per cent. more than the German workman, unless \$7.20 in Philadelphia would purchase as much food, clothing, house-rent, and other necessities, as ten thalers in Berlin, which is not the case. To aid in forming a correct estimate of the purchasing power of wages in Germany, tables showing the prices of provisions and other necessities of life are presented in the succeeding pages. To guard against erroneous conclusions, however, it must be stated here, as it has been heretofore done in relation to Great Britain, that the prices given in the tables referred to do not indicate with entire accuracy the cost of the necessities of life in Germany as compared with those in the United States. For example, the average market-price of superfine flour is as great in the former as in the latter country, but as it is not commonly used by the German workman, its price is comparatively of little importance as an element in the computation. If, however, a skilled laborer from the United States should obtain employment in Germany and subsist largely upon wheaten bread and animal food as he has been accustomed to at home, instead of in chief part upon rye-bread and beer,\* the value of the following tables for purposes of comparison would be greatly enhanced.

\* In the city of Prague, during the year 1873, the consumption of beer was on an average 72 gallons for every man, woman, and child in the city.

Although great care has been taken in the computation, yet it is believed that in some cases the "pound" as expressed in the tables is really the German "pfund," which is equivalent to  $1\frac{1}{8}$  English pounds.

It will be observed that the blank forms to which the prices of provisions in the following tables are attached, are the same as those used in the United States, and do not in all respects conform to the German classifications; as, for instance, in the different designations of sugar and domestic dry goods.

It is also believed that, in many cases, the figures given in the tables represent the prices of better qualities of the articles specified than are generally consumed by the working classes.

Statement showing the prices of provisions, groceries, and other leading articles of consumption, with house-rent and board, in the towns of Dresden, Chemnitz, and Leipzig, Saxony, in 1872, 1873, and 1874.

[The thaler computed at 72 cents.]

Articles.	Dresden.		Chemnitz.	Leipzic.	Average in Saxony.
	1872.	1873.	1872.	1874.	
PROVISIONS.					
Flour:					
Wheat, superfine.....per barrel.....			\$5 28	\$6 83	\$7 35
Wheat, extra family.....do.....			8 94	10 27	9 60
Rye.....do.....	\$7 46		\$5 28 to 7 06	8 35	7 43
Corn-meal.....do.....			5 88 to 7 06		6 47
Beef:					
Fresh, roasting-pieces.....per pound..	13	\$0 19	15	15	16
Fresh, soup-pieces.....do.....	12	17	13 1/2	12	14
Fresh, rump-steaks.....do.....	17	24	16	13	18
Corned.....do.....	17	14			15
Veal:					
Fore-quarters.....do.....	11			12	12
Hind-quarters.....do.....	11		10	14	12
Cutlets.....do.....		24	12	15	17
Mutton:					
Fore-quarters.....do.....	13		12	14	12
Leg.....do.....	12	19	13		15
Chops.....do.....	12	19	14	15	13
Pork:					
Fresh.....do.....	14	16	15	15	15
Corned or salted.....do.....	15	17	17	17	16
Bacon.....do.....	18	24	20	24	22
Hams, smoked.....do.....	18	24		24	22
Shoulders.....do.....	18		13		15
Sausages.....do.....	13	12	13		13
Lard.....do.....	14	19	21	24	20
Codfish, dry.....do.....	10				10
Butter.....do.....	\$0 26 to 29	38		34	33
Cheese.....do.....	12 to 24	12		22	16
Potatoes.....per bushel.....	80	86	48	51	66
Rice.....per pound.....	07	07		07	07
Beans.....per quart.....	05	11	04	11	08
Milk.....do.....	05		05	04	05
Eggs.....per dozen.....	14	20	14	21	17
GROCERIES, ETC.					
Tea—Oolong, or other good black.....per pound..	54	72	60		63
Coffee:					
Rio, green.....do.....	24	29	23		25
Rio, roasted.....do.....	29	36	30		32
Sugar:					
Good brown.....do.....	08 to 10	11	12	12	11
Yellow C.....do.....	08 to 10		13		11
Coffee B.....do.....		14		15	14
Sirup.....per gallon.....	38 to 64	75	(per lb.) 09		72
Soap, common.....per pound.....	07 to 10	10	08	11	08
Starch.....do.....	07	08	07	10	08
Fuel:					
Wood, hard.....per cord.....	6 48	7 20	5 00	9 60	7 07
Wood, pine.....do.....	4 86	5 52	3 60	8 60	5 70
Oil, coal.....per gallon.....		37		39	38
DRY GOODS, ETC.					
Shirtings:					
Brown, 4-4, standard quality.....per yard..	09			15	12
Bleached, 4-4, standard quality.....do.....	11			15	13
Sheetings:					
Brown, 9-8, standard quality.....do.....				38	38
Bleached, 9-8, standard quality.....do.....				38	39
Cotton-flannel, medium quality.....do.....	18 to 24	18		24	21
Tickings, good quality.....do.....	30	30			30
Prints.....do.....	10	11		19	13
Mousseline de laine.....do.....	60			36	48
Satinets, medium quality.....do.....	24				24
Boots, men's heavy.....per pair.....	2 64 to 2 28	3 24	3 24		3 06
HOUSE-RENT.					
Four-roomed tenements.....per month.....	5 04		2 40		3 72
Six-roomed tenements.....do.....	7 20				7 20
BOARD.					
For men, (mechanics or other workmen).... per week..	2 16 to 2 52				2 34
For women employed in factories.....do.....	1 08 to 1 25				1 17

Statement showing the prices of provisions, groceries, and other leading articles of consumption, with house-rent and board, in the undermentioned towns of Prussia, in 1872 and 1874.

[The thaler computed at 72 cents.]

Articles.	1872.		1874.	1872.		Average in Prussia.
	Aix-la-Chapelle.	Cologne.	Düsseldorf.	Berlin.	Danzig.	
PROVISIONS.						
Flour:						
Wheat, superfine.....	\$10 03	\$10 44	\$8 00	\$11 76	\$10 24	\$10 28
Wheat, extra family.....	10 43	19 94	6 32	14 11	11 94	12 03
Rye.....	.....	7 80	5 02	9 41	6 05	7 05
Corn-meal.....	5 63	.....	.....	.....	6 05	5 86
Beef:						
Fresh, roasting-pieces.....	17	.....	23	24	15	19
Fresh, soup-pieces.....	17	18	14	17	12	15
Fresh, rump-steaks.....	21	.....	25	31	21	24
Corned.....	.....	.....	19	16	17	17
Ven:						
Fore-quarters.....	16	.....	18	16	10 12 to	15
Hind-quarters.....	17	18	18	16	17	17
Cutlets.....	18	20	25	16	21	20
Mutton:						
Fore-quarters.....	17	17	.....	.....	10 12 to	15
Leg.....	18	.....	16	19	14	16
Chops.....	23	19	.....	19	14	18
Pork:						
Fresh.....	30	.....	19	19	12	16
Corned or salted.....	29	23	19	14	15	18
Bacon.....	30	23	23	19	21	20
Hams, smoked.....	27	34	28	20	28	28
Shoulders.....	23	23	19	19	18	20
Sausages.....	27	\$0 14 to	\$0 13 to	19	22	21
Lard.....	23	24	22	20	21	21
Codfish, dry.....	09	08	05	09	07	08
Butter.....	23	24	20	24	35	27
Cheese.....	30	26 to 34	30	24	28 to	38
Potatoes.....	73	10 to 12	13 to	16	14	15
Rice.....	04	37 to 54	57	76	46	53
Beans.....	05	04 to 07	09	05	06 to	07
Milk.....	04½	03 to 04	05	06	04	05
Eggs.....	18	14 to 17	20	19	03 to	04
GROCERIES, ETC.						
Tea—Oolong or other good black.....	75	60 to 84	73 to 1 00	86	83	80

Statement showing the prices of provisions, groceries, and other leading articles of consumption, with house-rent and board, &c.—Continued.

[The thaler computed at 73 cents.]

Articles.	1872.		1874.	1873.		Average in Prussia.
	Aix-la-Chapelle.	Cologne.	Düsseldorf.	Barmen and Elberfeld.	Berlin.	
GROCERIES, ETC.						
Coffee:						
Rio, green.....	\$0 27	\$0 22 to \$0 24	\$0 36	\$0 29	\$0 24	\$0 34
Rio, roasted.....	32	27		35	26	28
Sugar:						
Good brown.....				Not used.		
Yellow C.....		14				
Coffee B.....	10	12		14	\$0 12 to 13	
Sirup.....	Per pound, 11	06		Per pound, 12		
Soap, common.....	06	05	\$0 05 to 08	06	10 to 12	
Starch.....	11	10 to 11		12		
Fuel:						
Coal.....	5 52	7 68	4 32		6 72	6 66
Wood, hard.....	4 39		5 30	4 80		
Wood, pine.....	3 45		3 35	Not used.	5 28	
Oil, coal.....	60	48	38	34	43	56
DRY GOODS, ETC.						
Shirtings:						
Brown, 4-4, standard quality.....	10	08	11	11	10	
Bleached, 4-4, standard quality.....	14	08	14	14	14	11
Sheetings:						
Brown, 9-8, standard quality.....	14	14		Not used.	15 1/2	15
Bleached, 9-8, standard quality.....	15	16		Not used.	16 1/2	16
Cotton-flannel, medium quality.....	15		19	18	15 to 42	28
Tickings, good quality.....	26			24	24 to 30	
Prints.....	14	10	16	17	11 to 12	
Mousseline de laine.....		14	14	24		
Satinets, medium quality.....	41					
Boots, men's heavy.....	2 00	2 68 to 4 08	1 80 to 3 60	\$1 80 to 2 88	2 16 to 3 96	
HOUSE-RENT.						
Four-roomed tenements.....	9 rooms, 1 95	7 20		1 room, 1 44	5 04 to 10 08	5 58
Six-roomed tenements.....		10 80		1 50 to 2 52	for 2 rooms.	
				2 88 to 3 60	for 3 rooms.	8 50
BOARD.						
For men, (mechanics or other workmen).....	2 76	1 68 to 2 52	2 40	2 40	1 80	1 80
For women employed in factories.....		1 44	1 66	1 66	1 44	1 44

*Statement showing the prices of provisions, groceries, and other leading articles of consumption, with house-rent and board, in Munich, Stuttgart, and Frankfort, Germany, in 1872, 1873, and 1874.*

[The thaler computed at 72 cents; the florin at 40 cents.]

Articles.	Munich.	Stuttgart.	Frankfort-on-the-Main.		Average in Germany*.
	1872.	1873.	1872.	1874.	
PROVISIONS.					
Flour:					
Wheat, superfine..... per barrel..	\$12 00	\$8 50	\$11 50	.....	\$9 43
Wheat, extra family..... do.....	13 20	9 50	12 50	.....	11 12
Rye..... do.....	10 80	7 00	9 00	\$7 84	7 71
Corn-meal..... do.....	.....	7 50	9 00	.....	6 86
Beef:					
Fresh, roasting-pieces..... per pound..	17	17	15	18	17
Fresh, soup-pieces..... do.....	12	14	15	\$0 10 to 15	14
Fresh, rump-steaks..... do.....	13	15	20	.....	19
Corned..... do.....	21	.....	18	20	17
Veal:					
Fore-quarters..... do.....	11	14	15	14	13
Hind-quarters..... do.....	12	18	15	18	14
Cutlets..... do.....	12	16	.....	24	18
Mutton:					
Fore-quarters..... do.....	10	12	14	11	13
Leg..... do.....	10	14	22	15	15
Chops..... do.....	10	.....	22	20	17
Pork:					
Fresh..... do.....	17	15	15	17	16
Corned or salted..... do.....	.....	20	14	22	18
Bacon..... do.....	20	18	22	.....	21
Hams, smoked..... do.....	32	32	22	26 to 30	26
Shoulders..... do.....	32	.....	22	.....	21
Sausages..... do.....	32	16	\$0 14 to 20	16 to 32	19
Lard..... do.....	24	18	16	24	21
Codfish, dry..... do.....	08	06	09	09	09
Butter..... do.....	17	22	25 to 30	32	28
Cheese..... do.....	26	\$0 05 to 06	.....	26	17
Potatoes..... per bushel.....	48	.....	80	36	60
Rice..... per pound.....	08	08	06 to 09	06 to 09	07
Beans..... per quart.....	08	09	06	11	07
Milk..... do.....	04	04	05	06	05
Eggs..... per dozen.....	16	16	18	15	17
GROCERIES, ETC.					
Tea—Oolong, or other good black.... per pound..	80	1 00	64	60	73
Coffee:					
Rio, green..... do.....	25	.....	26	32	27
Rio, roasted..... do.....	31	.....	30	38	32
Sugar:					
Good brown..... do.....	08	12	.....	11	10
Yellow C..... do.....	11	14	16	14	13
Coffee B..... do.....	17	18	13	.....	15
Sirup..... per gallon.....	.....	40	64	.....	46
Soap, common..... per pound.....	10	10	08	06	08
Starch..... do.....	12	12	08	08 to 14	10
Fuel:					
Coal..... per ton.....	5 20	8 50	8 00	7 20	6 70
Wood, hard..... per cord.....	8 00	9 50	12 00	4 00	7 24
Wood, pine..... do.....	5 60	4 75	7 00	2 80	5 17
Oil, coal..... per gallon.....	24	48	1 00	64	49
DRY GOODS, ETC.					
Shirtings:					
Brown, 4-4, standard quality..... per yard..	11	10	14	16	12
Bleached, 4-4, standard quality..... do.....	12	10	10	20	13
Sheetings:					
Brown, 9-8, standard quality..... do.....	16	12 to 18	20	.....	24
Bleached, 9-8, standard quality..... do.....	20	17 to 25	20	40	26
Cotton-flannel, medium quality..... do.....	24	17 to 22	.....	18	21
Tickings, good quality..... do.....	13	30	.....	18 to 24	26
Prints, good..... do.....	12	10	.....	18	13
Mousseline de laines..... do.....	32	10 to 25	36	32	31
Satinets, medium quality..... do.....	24	30	26	.....	31
Boots, men's heavy..... per pair.....	4 00	2 75	3 00	2 50 to 4 00	3 08
HOUSE-RENT.					
Four-roomed tenements..... per month.....	.....	12 00	8 00	7 50	5 90
Six-roomed tenements..... do.....	.....	18 00	10 00	9 15	9 90
BOARD.					
For men, (mechanics or other workmen) per wk.	2 40	1 75 to 2 00	3 20	2 24 to 2 80	2 35
For women employed in factories..... do.....	2 40	1 00 to 1 40	1 60 to 2 40	1 75 to 2 80	1 56

\* General average of this statement and of the two on preceding pages.



*Prices of the following articles in Frankfort-on-Main and Offenbach.*

Articles.	Frankfort.	Offenbach.
Lamp-oil.....per liter..	\$0 19	.....
Petroleum.....do.....	06	.....
Olive-oil.....do.....	26	.....
Railroad-oil.....do.....	24	.....
Linen for shirts, bleached, (width, 6-4 meter).....per meter..	\$0 20 to 25	.....
Linen for shirts, unbleached, (width, 6-4 meter).....do.....	16 to 25	.....
Linen for sheets, bleached, (width, 6-4 meter).....do.....	40 to 60	.....
Linen for sheets, unbleached, (width, 6-4 meter).....do.....	30 to 40	.....
Cotton.....do.....	18 to 32	.....
Cotton, for bed-ticks.....do.....	18 to 24	.....
Boots, for men.....per pair..	2 50 to 4 00	\$2 00 to \$5 00
Boots of best make.....do.....	5 00 to 7 00	4 50 to 6 50
Shoes, for women.....do.....	1 50 to 2 50	1 25 to 2 00
Shoes of best make.....do.....	5 00 to 7 00	4 00 to 6 00
Shoes, for children.....do.....	50 to 1 50	32 to 50
HOUSE-RENT.		
One room, for a single man.....per month..	2 00 to 3 50	1 00
Two rooms and kitchen.....per year..	70 00 to 100 00	38 00 to 60 00
Three rooms and kitchen.....do.....	80 00 to 125 00	36 00 to 64 00
Three, four, five, or more workmen occupying one room, each, per month..	1 20	.....

In reference to the above, Mr. Consul-General Webster writes under date of October 14, 1874 :

I send herewith a list of the prices of the necessities of life in the cities of Frankfort and of Offenbach. The latter is almost wholly a manufacturing city where leather goods, machinery, carriages, &c., are made.

In the cost of the necessities of life there cannot be much difference between the two places. The articles sold in a place like Offenbach are of an inferior quality to those sold generally in Frankfort. But there is not a corresponding difference in the prices. The same quality sold in the lowest-class places in Frankfort would be about the same prices, perhaps a little lower.

In a letter dated a few months previously, Mr. Webster thus wrote in regard to the high prices of the necessities of life in Germany :

If, as is probable, the demand for labor will not continue to be so great as it now is, wages must still increase, in consequence of the advancing prices of provisions and cost of living. Rents have generally doubled within the last three years. Within my own knowledge, tenements, which rented in 1869 at from 800 to 1,200 florins, now rent from 2,000 to 3,000 florins. Common laborers occupy but very few rooms, and they pay often 12 to 20 florins for two small rooms per month. For a tenement, 300 to 500 florins. Congress may well raise compensation of its consuls, when they pay \$1,000 per year rent, and bring their bread from California.

The prevailing idea is that the cost of living is very much less in Europe than in the United States. I think that the experience of most persons and families now living in the cities of Europe satisfies them that there is but little difference between American and European cities, if we except our very largest cities. There is not much difference in rents, furniture, and provisions. There is a difference in clothing, household, and carriage-hire. Fuel is dearer, and gas is dearer here than in the United States. Of course, in the country and small towns rents are very different from the cities. In other things there is not much difference. Of course a person will live differently in the country from what he will live in a city, therefore he will live cheaper. If an American lives in a European city in the style and manner that he has lived at home, his expenses will not be materially less. People go abroad to live cheaper than at home. In order to accomplish it they live in smaller quarters, and in a meaner style. Travelers have often remarked to me that their bills at hotels are larger here than when in New York City. Also, that traveling by railroad with baggage is also dearer than in the United States. The general charge is 2½ to 3½ cents per mile, and baggage extra. Two hundred pounds of baggage costs about as much as a passenger.

## PRICES OF PROVISIONS IN THE BERLIN MARKET.

Statement showing the prices of provisions in the Berlin market in each month from January to October, inclusive, in the year 1874.

Months.	RECEIVED BY WATER.						RECEIVED BY LAND.					
	Wheat, 50 kilograms.*			Rye, 50 kilograms.			Barley, 50 kilograms.			Oats, 50 kilograms.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
January.....	3 43	3 88	3 05	3 56	1 98	3 30.60	3 76	3 10	3 23.50	3 52	1 74	3 15.90
February.....	3 36	3 88	3 05	3 56	1 92	3 30.40	3 76	3 10	3 23.60	3 52	1 74	3 15.90
March.....	3 36	3 88	3 05	3 56	1 92	3 30.40	3 76	3 10	3 23.60	3 52	1 74	3 15.90
April.....	3 31.20	3 88	3 05	3 56	1 92	3 30.40	3 76	3 10	3 23.60	3 52	1 74	3 15.90
May.....	3 31.20	3 88	3 05	3 56	1 92	3 30.40	3 76	3 10	3 23.60	3 52	1 74	3 15.90
June.....	3 31.20	3 88	3 05	3 56	1 92	3 30.40	3 76	3 10	3 23.60	3 52	1 74	3 15.90
July.....	3 31.20	3 88	3 05	3 56	1 92	3 30.40	3 76	3 10	3 23.60	3 52	1 74	3 15.90
August.....	3 30.40	3 88	3 05	3 56	1 92	3 30.40	3 76	3 10	3 23.60	3 52	1 74	3 15.90
September.....	3 66.40	3 88	3 05	3 56	1 92	3 30.40	3 76	3 10	3 23.60	3 52	1 74	3 15.90
October.....	3 66.40	3 88	3 05	3 56	1 92	3 30.40	3 76	3 10	3 23.60	3 52	1 74	3 15.90
Total.....	32 03.60	36 23.90	28 81.60	34 93	18 64.20	22 72.80	36 58	21 33.20	23 04	35 41.60	18 64.80	31 36.80
Average.....	3 20.36	3 62.32	2 88.16	3 49.30	1 86.42	2 27.22	3 65.80	2 13.32	2 30.40	2 54.16	1 86.48	2 13.68

Months.	RECEIVED BY WATER.						RECEIVED BY LAND.					
	Wheat, 50 kilograms.			Rye, 50 kilograms.			Barley, 50 kilograms.			Oats, 50 kilograms.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
January.....	3 24	3 88	3 02.40	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
February.....	3 24	3 88	3 02.40	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
March.....	3 24	3 88	3 02.40	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
April.....	3 16.80	3 88	3 16.80	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
May.....	3 16.80	3 88	3 16.80	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
June.....	3 02.40	3 88	3 02.40	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
July.....	3 02.40	3 88	3 02.40	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
August.....	3 02.40	3 88	3 02.40	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
September.....	3 02.40	3 88	3 02.40	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
October.....	3 02.40	3 88	3 02.40	3 56	3 16	3 42.40	3 46	3 46	3 36.60	3 52	3 16	3 34
Total.....	18 50.40	16 99.20	16 97.60	25 02.80	23 43.60	23 83.20	22 23.40	22 92.20	21 53.60	25 63.20	24 21.40	24 80.40
Average.....	1 85.04	1 69.92	1 69.76	2 50.26	2 34.36	2 38.38	2 22.34	2 29.22	2 15.36	2 56.32	2 42.14	2 48.04

\* Kilogram = about 2 1/2 pounds; 50 kilograms = 110.23 pounds.

Statement showing the prices of provisions in the Berlin market, &amp;c.—Continued.

Months.	RECEIVED BY LAND.												POTATOES.		
	Straw, 60 bundles.				Pease, 5 liters.*				Lentils, 5 liters.				Beans, 5 liters.		
	Highest.	Lowest.	Average.		Highest.	Lowest.	Average.		Highest.	Lowest.	Average.		Highest.	Lowest.	Average.
January.....	\$1 08	\$7 92	\$8 83.20		\$0 36	\$0 24	\$0 28.20		\$0 48	\$0 30	\$0 35		\$0 72.20	\$0 04.20	\$0 06.20
February.....	9 72	7 92	8 92.20		36	24	28.60		42	30	35.40		72.20	04.20	06.20
March.....	9 72	8 28	8 70.80		36	24	29		42	30	34.80		72.20	05.40	06.20
April.....	10 08	7 92	9 19		36	24	28.80		42	30	35.40		72.20	03.40	06.20
May.....	10 08	7 92	9 00.80		36	14.40			42	30	35.40		72.20	05.40	06.20
June.....	8 28	8 28	8 91.80		36	24	28.60		48	30	36		12	07.70	07.20
July.....	9 72	7 92	8 87.40		36	24	28.80		42	30	35.40		19.20	07.20	12.20
August.....	7 92	7 92	8 88.80		36	24	29.40		48	28.80	36.00		18	08.40	08
September.....	9 36	7 92	8 81.40		36	24	30		42	30	35.40		13	06	06.60
October.....	10 08	7 92	9 16.60		42	24	28.40		48	24	36		08.60	06	
Total.....	98 28	79 92	89 31.60		3 75	2 30.40	2 91.30		4 44	2 92.80	3 54.20		1 06.80	59.10	77.40
Average.....	9 82.80	7 93.20	8 93.16		37.50	23.04	28.13		44.40	28.28	35.42		10.68	5.91	7.74

Months.	FLOUR.												POTATOES.		
	Per bushel.				Wheat-flour, per pound.				Coarse wheat-flour, per pound.				Fine rye-flour, per pound.		
	Highest.	Lowest.	Average.		Highest.	Lowest.	Average.		Highest.	Lowest.	Average.		Highest.	Lowest.	Average.
January.....	\$0 73	\$0 48	\$0 60.20		\$0 08.40	\$0 06	\$0 06.80		\$0 07.20	\$0 04.80	\$0 05.40		\$0 04.20	\$0 03	\$0 03.60
February.....	72	48	53.80		08.40	06	06.80		07.20	04.80	05.40		04.20	03	03.40
March.....	72	48	53.80		08.40	06	06.80		07.20	04.80	05.40		04.20	03	03.40
April.....	66	48	53.40		08.40	06	06.80		07.20	04.80	05.40		04.20	03	03.40
May.....	66	48	53.40		08.40	06	06.80		07.20	04.80	05.40		04.20	03	03.40
June.....	74	54	71.40		07.20	06	06.80		06.60	04.80	05.40		04.20	03	03.40
July.....	1 46	66	1 06.80		07.20	06	06.80		06.60	04.80	05.40		04.20	03	03.40
August.....	1 44	60	1 01.20		06.60	06	07		07.20	04.80	05.80		04.20	03	03.40
September.....	70	48	70.20		08.40	06	07		07.20	04.80	05.80		04.20	03	03.40
October.....	78	48	62.60		09.60	06	06.80		07.20	04.80	05.60		04.20	03	03.40
Total.....	8 86	5 16	7 20.60		34	60	68.40		69.20	48	55.20		41.40	30	33.80
Average.....	88.60	51.60	72.06		03.40	06	06.84		6.92	04.80	05.28		04.14	03	03.38

\* 1 liter = 0.008 United States quart, 5 liters = 4.54 United States quart, or about 14 gallons.

Statement showing the prices of provisions in the Berlin market, &amp;c.—Continued.

Months.	PEARL BARLEY.										OATS.		
	FARINA.					FINE, PER POUND.					MIDDLING, PER POUND.		
	OF WHEAT, PER POUND.		OF BUCKWHEAT, PER POUND.		Average.	FINE, PER POUND.		Average.	Lowest.	Highest.	MIDDLING, PER POUND.		Average.
	Highest.	Lowest.	Highest.	Lowest.		Highest.	Lowest.				Highest.	Lowest.	
January.....	\$0 08.60	\$0 07.20	\$0 06.60	\$0 06	\$0 07.20	\$0 09.60	\$0 07.20	\$0 08.80	\$0 08.40	\$0 08.40	\$0 07.20	\$0 06	\$0 06.00
February.....	08.60	07.20	09.60	06	07.40	09.60	07.20	09.60	08.40	08.40	07.20	06	06.80
March.....	09.60	07.20	08.60	06	07.40	09.60	07.20	08.80	08.40	08.40	07.20	06	06.80
April.....	09.60	07.20	08.60	06	07.40	09.60	07.20	08.80	08.40	08.40	07.20	06	06.80
May.....	09.60	07.20	08.60	06	07.40	09.60	07.20	08.80	08.40	08.40	07.20	06	06.80
June.....	09.60	07.20	08.60	06	07.40	09.60	07.20	08.80	08.40	08.40	07.20	06	06.80
July.....	09.60	07.20	08.60	06	07.40	09.60	07.20	08.80	08.40	08.40	07.20	06	06.80
August.....	09.60	07.20	08.60	06	07.40	09.60	07.20	08.80	08.40	08.40	07.20	06	06.80
September.....	09.60	07.20	08.60	06	07.40	09.60	07.20	08.80	08.40	08.40	07.20	06	06.80
October.....	09.60	07.20	08.60	06	07.40	09.60	07.20	08.80	08.40	08.40	07.20	06	06.80
Total.....	96	72	86.80	60	68.60	96.60	78.60	87	84	84	53.80	60	68.60
Average.....	09.60	07.20	08.68	06	06.96	09.66	07.86	08.70	08.40	08.40	05.88	06	06.86

Months.	MEAT.										OATS.		
	BEEF, PER POUND.					PORK, PER POUND.					MUTTON, PER POUND.		
	OF CATTLE, PER POUND.		Average.		Average.	PORK, PER POUND.		Average.	Lowest.	Highest.	MUTTON, PER POUND.		Average.
	Highest.	Lowest.	Highest.	Lowest.		Highest.	Lowest.				Highest.	Lowest.	
January.....	\$0 08.40	\$0 06.60	\$0 07	\$0 16	\$0 13.20	\$0 19.20	\$0 13.20	\$0 16.60	\$0 18	\$0 18	\$0 15.40	\$0 13	\$0 14.40
February.....	08.40	06.60	07	16	13.20	19.20	13.20	16.60	18	18	15.40	13	14.40
March.....	09.60	06	07	16	13.20	18	13.20	16.60	18	18	15.20	13	14.20
April.....	09.60	06	07	16	13.20	18	14.40	16.60	18	18	15.20	13	14.20
May.....	09.60	06	07	16	13.20	18	14.40	16.60	18	18	15.20	13	14.20
June.....	09.60	06	07	16	13.20	18	14.40	16.60	18	18	15.20	13	14.20
July.....	09.60	06	07	16	13.20	18	14.40	16.60	18	18	15.20	13	14.20
August.....	09.60	06	07	16	13.20	18	14.40	16.60	18	18	15.20	13	14.20
September.....	09.60	06	07	16	13.20	18	14.40	16.60	18	18	15.20	13	14.20
October.....	09.60	06	07	16	13.20	18	14.40	16.60	18	18	15.20	13	14.20
Total.....	85.20	63	70.40	18.80	15.76	18.72	13.32	16.44	17.16	17.16	15.20	13	14.60
Average.....	08.52	06.30	07.04	11.86	15.76	18.72	13.32	16.44	17.16	17.16	15.20	13	14.60

Statement showing the prices of provisions in the Berlin market, &amp;c.—Continued.

Months.	BACON.						HAM.			BUTTER.		
	Fat, per pound.			Streaked, per pound.			Smoked, per pound.			Cut, without bones, per pound.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
January.....	\$0 24	\$0 19.20	\$0 22.20	\$0 24	\$0 12	\$0 22.20	\$0 33.60	\$0 21.60	\$0 28.80	\$0 36	\$0 24	\$0 30.40
February.....	24	19.20	22.20	24	12	22.20	33.60	21.60	28.80	36	24	30.40
March.....	24	19.20	22.20	24	12	22.20	33.60	21.60	28.80	36	24	30.40
April.....	24	19.20	21.40	24	12	21.40	33.60	21.60	28.80	36	24	30.40
May.....	24	19.20	21.40	24	12	21.40	33.60	21.60	28.80	36	24	30.40
June.....	24	19.20	21.40	24	12	21.40	33.60	21.60	28.80	36	24	30.40
July.....	24	19.20	21.40	24	12	21.40	33.60	21.60	28.80	36	24	30.40
August.....	24	19.20	21.40	24	12	21.40	33.60	21.60	28.80	36	24	30.40
September.....	24	19.20	21.40	24	12	21.40	33.60	21.60	28.80	36	24	30.40
October.....	24	19.20	21.60	24	12	21.60	33.60	21.60	28.80	36	24	30.40
Total.....	2 40	1 92	2 16.60	2 40	1 20	2 16.60	3 36	2 16	2 64.40	3 84	2 50.80	2 96.40
Average.....	24	19.20	21.66	24	12	21.66	33.60	21.60	28.44	34.80	25.08	29.64

Months.	EGGS.						VENISON AND GAME.					
	Per 15.			Red-deer, saddle, per piece.			Red-deer, leg, per piece.			Fallow-deer, saddle.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
January.....	\$0 30	\$0 24	\$0 25.40	\$4 68	\$4 04	\$4 51.90	\$4 32	\$3 60	\$4 12.40	\$3 24	\$2 52	\$2 90.40
February.....	24	18	20.40	4 68	4 04	4 48	4 56	3 56	4 17.20	3 24	2 16	3 14.40
March.....	24	18	18.80	4 68	4 04	4 50	4 96	3 60	4 17	3 24	1 80	3 13.20
April.....	24	14.40	18	.....	.....	.....	.....	.....	.....	3 60	1 80	2 57
May.....	19.20	13.20	15.40	.....	.....	.....	.....	.....	.....	3 60	1 80	2 57
June.....	18	14.40	15.20	.....	.....	.....	.....	.....	.....	3 60	1 80	2 57
July.....	18.80	14.40	16.80	5 04	3 60	4 36.90	4 68	2 88	3 80.20	3 60	1 80	2 57
August.....	19.20	15.60	17.60	4 68	2 88	3 82.60	3 32	2 88	3 34.80	3 60	1 80	2 57
September.....	20.40	16.80	18.40	5 04	2 16	3 72.60	4 68	2 16	3 31.80	3 60	1 80	2 57
October.....	21.60	17.40	20.20	5 76	2 16	3 93.30	3 32	2 16	3 32	3 60	1 80	2 57
Total.....	2 19	1 66.20	1 86.40	34 56	22.92	28 33.90	26 64	21 16	26 18.40	28 06	16 30	21 37.40
Average.....	21.00	16.02	18.64	4 63.71	3 27.43	4 04.84	3 83.43	3 02.28	3 74.02	3 12	1 80	2 36.49

Statement showing the prices of provisions in the Berlin market, &amp;c.—Continued.

Months.	VENISON AND GAME.										POULTRY.									
	Hares, each.					Partridges, each.					Turkeys, each.					Capons, each.				
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.
January.....	\$0 84	\$0 60	\$0 69.50	.....	.....	.....	\$3 60	\$1 80	\$2 51.00	\$0 96	\$0 80	\$0 82	\$0 06	\$0 36	\$0 48.40	\$0 06	\$0 36	\$0 48.40	\$0 06	\$0 36
February.....	90	60	74.80	.....	.....	.....	3 60	1 80	2 50.80	96	48	76	66	36	48.40	66	36	48.40	66	36
March.....	.....	.....	.....	.....	.....	.....	3 60	1 80	2 55.60	96	48	76.00	66	36	50.40	66	36	50.40	66	36
April.....	.....	.....	.....	.....	.....	.....	3 60	1 80	2 45.60	96	48	70.80	66	36	47.20	66	36	47.20	66	36
May.....	.....	.....	.....	.....	.....	.....	3 60	1 80	2 38.20	96	48	69.60	66	36	44.80	66	36	44.80	66	36
June.....	.....	.....	.....	.....	.....	.....	3 60	1 80	2 34.80	96	48	73.60	66	36	42.80	66	36	42.80	66	36
July.....	.....	.....	.....	.....	.....	.....	2 80	1 80	2 36.60	96	54	71.40	60	30	43.60	60	30	43.60	60	30
August.....	1 20	78	1 05	\$0 43	\$0 14.40	\$0 32.20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
September.....	1 48	1 33	92.20	43	14.40	24.80	1 80	1 44	1 63.20	96	48	71.40	60	30	42.80	60	30	42.80	60	30
October.....	1 50	60	87	48	14.40	22.60	2 16	1 08	1 50.40	96	56	54.60	60	30	43.80	60	30	43.80	60	30
Total.....	5 58	3 84	4 28.80	1 32	43.20	85.60	24 04	13 32	22 24.20	9 24	4 86	7 04	6 30.60	3 30	4 61.20	6 30.60	3 30	4 61.20	6 30.60	3 30
Average.....	1 11.60	70.80	85.78	44	14.40	88.53	3 00.50	1 66.50	2 47.13	92.40	48.60	70.40	63.96	33	40.13	63.96	33	40.13	63.96	33

Months.	POULTRY.										DRIED FRUIT.									
	Spring chickens, each.					Ducks, each.					Geese, each.					Pigeons, per pair.				
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.
January.....	\$0 42	\$0 18	\$0 28.20	\$0 96	\$0 36	\$0 62	\$2 52	\$1 08	\$1 71.60	\$0 36	\$0 18	\$0 20.40	\$0 96	\$0 36	\$0 51	\$0 96	\$0 36	\$0 51	\$0 96	\$0 36
February.....	43	18	28.80	1 02	30	64.40	2 16	96	1 46.20	36	18	20.50	96	36	55.40	84	60	55.40	84	60
March.....	43	18	30.60	1 06	36	63.60	2 04	96	1 41.60	36	18	19.20	96	36	56	84	60	56	84	60
April.....	43	18	29.40	90	36	66	2 04	1 02	1 62	36	18	19.20	96	36	61.20	84	60	61.20	84	60
May.....	43	18	25.80	90	36	61.80	1 68	96	1 62	36	18	19.20	96	36	60.40	84	60	60.40	84	60
June.....	43	14.40	23	96	30	54.80	1 44	84	1 19.80	36	18	19.20	96	36	60.20	84	60	60.20	84	60
July.....	30	12	22	72	30	50.20	1 44	84	1 19.80	36	18	19.20	96	36	60.20	84	60	60.20	84	60
August.....	43	12	22.80	72	30	47.80	1 68	84	1 19.80	36	18	19.20	96	36	60.20	84	60	60.20	84	60
September.....	30	12	22.80	72	30	50.00	1 68	84	1 19.80	36	18	19.20	96	36	60.20	84	60	60.20	84	60
October.....	43	14.40	25.80	72	36	51.40	2 28	96	1 32.60	31.20	18	19.20	96	36	71	72	60	71	72	60
Total.....	4 20	1 51.20	2 58.20	8 58	3 60	5 72	18 04	9 18	13 43.20	3 54	1 83.60	2 62.60	8 64	5 16	6 26.40	8 64	5 16	6 26.40	8 64	5 16
Average.....	42.60	15.12	25.88	85.80	36	57.20	1 80.40	91.80	1 34.82	35.40	18.36	26.26	86.40	51.60	62.64	86.40	51.60	62.64	86.40	51.60

Statement showing the prices of provisions in the Berlin market, &c.—Continued.

Months.	DRIED FRUIT.											
	Pears, 5 liters.			Prunes, 5 liters.			Millet, per pound.			Oat-meal, per pound.		
	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.	Highest.	Lowest.	Average.
January.....	\$0 73	\$0 36	\$0 50	\$0 96	\$0 48	\$0 59.50	\$0 08.40	\$0 06	\$0 07	\$0 08.40	\$0 07.50	\$0 07.40
February.....	73	36	53.50	96	48	64	08.40	06	07	08.40	07.50	07.80
March.....	73	43	59	1 02	54	64.50	08.40	06.60	07.50	08.40	06.60	07.80
April.....	73	43	53	96	60	67.20	09	06	07.40	08.40	07.50	08
May.....	73	36	49.80	1 02	48	69.40	08.60	06	07.40	09.60	07.50	08.50
June.....	73	36	52.50	96	48	70.40	08.40	06	07.50	08.40	07.50	08
July.....	73	43	54	90	60	75.50	08.40	07.50	07.60	08.40	07.50	08
August.....	73	43	59.40	84	48	71	08.40	07.50	07.60	08.40	07.50	08
September.....	73	43	62.60	80	73	73.80	08.40	07.50	07.60	08.40	07.50	08
October.....	73	36	69.50	73	48	69.50	08.40	06.60	07.60	09.60	07.50	08
Total.....	7 20	3 90	5 55.40	9 24	5 34	6 83.60	8 05.80	6 04.80	7 03.30	8 05.80	0 71.40	0 78.90
Average.....	73	39	55.54	92.40	53.40	68.36	08.06	06.05	07.04	08.06	07.14	07.88

\* It will be observed that the figures in these columns and in similar columns in the tables on the five pages immediately preceding, do not express the arithmetical mean between the highest and lowest prices. They denote, however, the true "average" as obtained by computation of the quantities sold at different prices in the Berlin market.

#### EXPENDITURES OF WORKMEN'S FAMILIES.

Having, in the pages immediately preceding, given the prices of provisions and other articles of domestic consumption, it may be desirable in this connection to show the expenditures of the families of workmen in different localities and under different circumstances, to furnish a basis of comparison between the actual expenditures of workmen for the respective elements of subsistence, clothing, and shelter, and those of other countries in Europe and America.

Before presenting data relating to the years 1872 and 1873, information somewhat similar relating to the expenditures of families in previous years are given, which will serve to show not only the low prices which formerly prevailed in comparison with those of the present time, but the moderate rate of expenditure for living which obtained among the agricultural laborers of Germany.

## COST OF SUBSISTENCE IN PRUSSIA.

Statement showing the annual sum required to support a workman and his family in the following provinces and districts of Prussia.

[Condensed from official returns published in 1880.]

Provinces, districts, &c.	No. persons in family.	Subsistence.	Lodging.	Fuel.	Clothing.	Articles of household use and tools.	School-money and taxes.	Total.
Province of Prussia:								
District of Gumbinnen—towns.....	4 to 5	\$73 00	\$8 76	\$8 76	\$14 60	\$4 38	\$2 10	\$111 69
District and town of Königsberg.....	.....	131 40	21 90	5 84	11 68	2 92	1 46	175 20
District of Marienwerder—towns.....	.....	43 80 to 52 56	8 76	5 84	\$10 92 to 10 95	.....	\$2 19 to 2 92	\$70 81 to 81 03
Province of Posen:								
District of Posen—rural districts and small towns.....	5	39 20 to 80 29	\$3 65 to 10 95	\$2 92 to 14 60	5 84 to 31 90	\$0 73 to 9 49	97 to 3 65	43 31 to 140 88
Province of Silesia:								
Town of Görlitz.....	4 to 5	73 00 to 81 75	23 36 to 25 55	.....	13 14 to 15 33	2 92	4 38	116 80 to 139 93
District of Breslau—{ small towns.....	4	36 50 to 87 60	24 to 18 25	3 05 to 10 95	5 84 to 29 20	73 to 16 25	73 to 3 65	47 69 to 167 90
District of Breslau—{ manufacturing districts.....	.....	58 40 to 50 29	10 92 to 14 60	4 38 to 6 57	14 60 to 29 20	9 19 to 14 00	1 46 to 2 92	91 25 to 148 18
Province of Pomerania:								
District of Koalin—rural dist's and small towns.....	5 to 6	36 50 to 73 00	8 76 to 12 41	5 84 to 8 76	7 30 to 14 60	73 to 4 38	9 19 to 2 92	61 32 to 116 07
Province of Brandenburg:								
District of Potsdam—rural district.....	5 to 6	58 40 to 87 60	9 19 to 8 76	9 19 to 7 30	7 30 to 36 50	9 19 to 3 65	2 92 to 4 38	75 19 to 148 19
District of Frankfurt—rural districts and small towns.....	4 to 5	51 10 to 102 20	7 30 to 10 97	2 92 to 11 68	10 97 to 14 60	3 65 to 7 30	2 92	76 86 to 149 67
Province of Saxony:								
Town of Magdeburg.....	5	87 60	8 95 to 31 90	7 30	21 90	3 65	3 65	132 35 to 146 00
Province of Westphalia:								
District and town of Münster.....	.....	69 05 to 65 69	14 60 to 18 25	3 65	10 95 to 14 60	3 65	3 65	98 55 to 109 49
District of Minden—rural districts and towns.....	5 to 6	51 10 to 65 69	7 30 to 8 76	3 65 to 8 76	10 95 to 14 60	9 19 to 5 11	2 19 to 3 65	77 38 to 106 57
Rhenish provinces:								
Circle of Easen, northern part.....	5	127 75	18 98	8 76	21 90	3 65	3 65	184 69
Mettmann, manufacturing districts.....	5	91 25	14 60	14 60	18 25	3 65	3 65	146 00
Town of Reuss, mechanical.....	.....	.....	.....	.....	.....	.....	.....	.....
District of Düsseldorf:								
Town of Deutz.....	4	65 69 to 73 00	14 60 to 28 28	5 84 to 7 30	29 20 to 37 96	9 19 to 2 92	5 84 to 7 30	132 36 to 154 76
Town of Bonn.....	5	131 40	21 90	8 76	14 60	.....	2 19	178 85
Town of Treves.....	5	102 20	21 90	8 76	10 95	.....	2 19	146 00
Coblenz, rural districts and small towns.....	5	80 29	20 44	14 60	29 20	5 84	2 92	153 29
.....	5 to 6	87 60 to 94 89	10 95	8 76 to 18 98	11 68 to 31 90	3 65 to 5 11	5 84 to 7 30	138 48 to 159 13



## COST OF LIVING IN RURAL DISTRICTS.

*Statement showing the annual cost of living of a rural laborer's family, consisting of husband, wife, and three children, from the result of an official inquiry in 1849.*

[The thaler computed at 72 cents, United States gold.]

Governmental districts of Prussia.	Rent.	Fuel.	Provisions.	Clothing.	Feed for cattle.	Repair of tools.	Salt and spices.	Church and school.	Total.
Königsberg .....	\$5 76	\$2 88	\$43 20	\$14 40	\$5 76	\$2 88	\$2 88	\$1 44	\$79 20
Gumbinnen .....	2 88	3 60	25 20	7 20	6 48	1 44	2 88	1 44	51 12
Dantzic .....	5 04	4 32	39 60	10 08	7 92	1 44	2 16	2 16	72 72
Marienwerder .....	5 76	5 76	34 56	12 96	9 36	2 16	3 60	1 44	75 00
Posen .....	5 40	5 76	29 40	16 92	6 36	3 60	3 24	1 56	73 94
Potdam .....	5 76	5 76	57 60	23 76	7 20	2 16	1 44	2 88	106 56
Frankfort-on-Oder .....	5 76	5 76	46 56	14 40	11 52	4 32	1 68	3 60	93 60
Stettin .....	6 48	8 28	48 96	18 00	11 52	2 88	1 80	2 88	100 00
Cöselin .....	7 92	5 04	36 00	14 40	11 52	1 44	2 88	2 16	81 36
Stralsund .....	6 48	7 20	59 76	14 40	7 20	2 16	2 16	2 88	102 96
Breslau .....	3 60	4 68	38 16	11 52	5 04	1 80	2 16	2 16	69 12
Lappeln .....	3 60	5 76	38 00	12 94	5 76	2 16	2 16	2 16	69 12
Liegnitz .....	3 60	6 48	41 76	12 96	5 40	2 52	1 44	2 88	77 04
Magdeburg .....	5 76	7 92	45 36	8 64	9 52	1 50	1 44	2 88	76 32
Merseburg .....	6 48	5 04	44 64	10 80	3 60	2 16	1 44	2 88	77 04
Erfurt .....	7 20	7 92	41 76	7 92	4 32	2 16	1 80	5 04	77 04
Münster .....	5 04	7 20	50 40	11 52	7 20	2 88	1 80	2 88	88 00
Arnsberg .....	7 92	7 92	39 60	10 80	5 76	2 16	2 16	2 16	73 44
Cologne .....	10 80	10 80	50 40	25 20	7 20	3 60	2 16	5 76	115 20
Düsseldorf .....	10 80	6 96	26 28	8 64	.....	1 08	.....	74	54 48
Coblenz .....	9 36	11 52	93 60	25 20	.....	2 88	1 80	2 88	147 24
Treves .....	9 00	9 00	21 60	14 40	10 80	5 76	4 32	3 60	78 48
Aix-la-Chapelle .....	5 76	7 92	43 20	13 96	2 88	1 44	1 44	1 44	77 04
Average .....	6 35	6 67	43 20	13 88	6 92	2 47	2 22	2 57	84 28
Percentage of each to the whole .....	7.60	7.98	51.67	16.61	7.56	2.96	2.54	3.08	100.00

*Table showing the earnings of rural laborers who possess no real estate, but work for land-proprietors.*

## KÖNIGSBERG.

## Emoluments.

Free domicile, value.....	\$5 76 to \$7 20
Land for garden and potatoes, value.....	5 76 to 7 20
Pasture for 1 cow, value.....	5 76 to 7 20
Fuel .....	7 20 to 8 64
10 scheffel rye, at 1½ thaler, value.....	8 40
6 scheffel barley .....	3 24
2 scheffel pease, at 1½ thaler, value.....	1 68
2 scheffel oats .....	0 82
Cash.....	7 20 to 9 36
Total.....	53 74

## GUMBINNEN.

## Ordinary emoluments.

Free domicile, value.....	\$2 88
Fuel .....	0 72
12 scheffel rye at 1½ thaler .....	11 52
Feed for cattle, value.....	10 80
Potatoes and vegetables, value.....	5 76
Cash .....	7 20
The above is for 24 weeks' work, (of son).....	8 64
Extra for threshing 20 scheffel grain at 1 thaler.....	14 40

*Extra emoluments.*

Butter, 1 stone, value.....	3 60
1 scheffel linseed, value.....	2 16
2 lambs, value.....	2 88
Eggs, poultry, &c., value.....	0 84
1 calf, value.....	0 72
1 pig, value.....	5 76
1 fat pig.....	8 64
4 pounds wool at $\frac{1}{4}$ thaler.....	0 48
<b>Total.....</b>	<b>87 00</b>

## DANTZIC.

*Emoluments.*

Free domicile, value.....	\$5 04
Fuel.....	4 32
120 square rods land for potatoes and garden, value.....	5 76
30 square rods land for linseed, value.....	1 44
Products of cow, less cost of feed.....	5 28
Sale of 5 scheffel rye at 1 thaler.....	3 60
Sale of wool, less feed of sheep.....	1 08
Wages, 140 days at $\frac{1}{10}$ thaler, 168 days at $\frac{1}{10}$ , and 30 days at $\frac{1}{10}$ .....	26 98
Wages, for threshing through the winter.....	21 84
<b>Total.....</b>	<b>75.34</b>

## MARIENWERDER.

*Emoluments.*

Free domicile, value.....	\$5 76
Land for garden, value.....	4 80
Land for farming.....	5 76
Pasture, meadows, and hay.....	7 20
Fuel and light.....	8 64
<b>Total.....</b>	<b>32 16</b>
From this sum are subtracted for rent of house and garden, 2 thalers } Rent of land..... 2 thalers } Pasturage for 1 cow, 3 swine..... 2 thalers }	4 32

The emoluments over.....	27 84
Wages, in summer, husband per day, $\frac{1}{10}$ thaler.....	0 10
in summer, wife, per day, $\frac{1}{10}$ thaler.....	0 7
in winter, husband, per day, $\frac{1}{10}$ thaler.....	0 7
in winter, wife, per day, $\frac{1}{10}$ thaler.....	0 5

## POSEN.

Field-laborers receive a free dwelling with 1 morgen\* land for garden, 1 morgen for potato field, free pasture for a few swine and for 1 cow, also winter feed for the latter, and wood for fuel. For these emoluments the husband renders 52, the wife 30 days' service. Daily wages, husband, 12 cents, woman, 6 to 9 cents, children, 7 cents.

Threshing in winter, which lasts 5 months, yields to the laborer about 25 scheffel rye.

## POTSDAM.

The compensation of married field-laborers consists of a free dwelling and fuel, 90 square rods of field and 30 square rods of garden land, 3 morgen land for potatoes, pasture and feed for 1 cow and 1 pig, fattening at own expense; moreover, about 25 bushels rye, 4½ scheffel pease, 4 scheffel barley, 20 scheffel oats, and about 1 bushel salt.

For these emoluments and a cash pay of 30 thalers (\$21.60) the husband is bound to give every day's service, while the woman, when required, receives  $\frac{1}{10}$  thaler (9½ cents) per day. Thus their cash income amounts to—

Man's cash pay.....	\$21 60
Woman's wages.....	14 40
Sale of potatoes, swine, &c.....	18 00
<b>Total.....</b>	<b>54 00</b>

\* 1 morgen = 0.631 United States acre.

Unmarried laborers receive board and lodging, 30 thalers (\$21.60) per year, of wages, a load of wood; and if they are in charge of a horse and wagon, about 10 to 12 thalers (\$7.20 to \$8.64) annually, for bringing products to market.

## FRANKFORT.

Married field-hands are furnished by the owners of estates with a free dwelling,  $\frac{1}{2}$  morgen of land, pasture for 1 cow, and fuel. For dwelling and garden the laborer's wife renders one day's service each week; for rent of land the husband renders labor worth  $2\frac{1}{2}$  thalers (\$1.70). For wages, the laborer receives  $\frac{1}{2}$  thalers, (12 cents,) the wife  $\frac{1}{4}$  thaler (14 cents) per day. Contract work pays the man  $\frac{1}{2}$  thaler (24 cents) a day, and during the harvest he earns  $\frac{1}{2}$  thaler (18 cents) and the wife  $\frac{1}{4}$  thaler (9 cents) a day.

For threshing he gives one-fifteenth or one-fourteenth part of the grain threshed.

The whole earnings are thus computed—

26 weeks at $\frac{1}{2}$ thaler, (18 cents) .....	\$28 06
Threshing 6 months, at 6 scheffel .....	7 20
Woman, 104 days, at $\frac{1}{4}$ thaler .....	7 40
Woman, 104 days, at .....	6 24
Extra earnings during harvest .....	3 60
<b>Total</b> .....	<b>52 52</b>

Day-laborers' work on an average—

In summer, 13 hours for  $\frac{1}{2}$  thaler, (18 cents;) in winter, 9 hours for  $\frac{1}{2}$  thaler, (14 cents.)

Under contract, 11 hours for  $\frac{1}{2}$  thaler (18 cents) in summer; 9 hours for  $\frac{1}{2}$  thaler (14 cents) in winter.

## STETTIN.

## Emoluments.

50 square rods land for garden, 40 square rods land for linseed, 40 square rods land for potatoes, 50 square rods land for rye, pasture for 1 cow, 1 load of hay, 6,000 pieces of turf for fuel, for which the family render—wife 52 days at  $\frac{1}{10}$  thaler, (7 cents,) rent for potatoes, linseed land, 5 thalers, (\$3.60,) turf,  $1\frac{1}{2}$  thaler, (\$1.01.)

For the work the man receives  $1\frac{1}{2}$  thalers (90 cents) per week; the wife works 290 days at  $\frac{1}{10}$  thaler, 29 thalers, \$20.88.

For threshing the men receive one-seventeenth of the grain; accordingly the earnings amount for the year to—

Days' wages to husband .....	32 thalers..	\$23 04
Days' wages to wife .....	30 thalers..	21 60
For threshing .....	32 thalers..	23 04
Increase for contract work .....	5 thalers..	3 60
Cleaning flax .....	12 thalers..	8 64
Attending cattle .....	10 thalers..	7 20
Woman, by spinning .....	4 thalers..	2 88
Yields from potato land .....	24 thalers..	17 28
<b>*Total</b> .....	<b>149 thalers..</b>	<b>107 28</b>

The expenses for house rent .....	6 $\frac{1}{2}$ thalers..	\$4 68
fuel .....	9 $\frac{1}{2}$ thalers..	6 96
food .....	63 $\frac{1}{2}$ thalers..	45 60
clothing .....	41 $\frac{1}{2}$ thalers..	29 71
furniture .....	5 thalers..	3 60
salt .....	3 $\frac{1}{2}$ thalers..	2 69
taxes, church and school .....	4 $\frac{1}{2}$ thalers..	3 54
linen .....	8 $\frac{1}{2}$ thalers..	5 88

**Total** .....

142 $\frac{1}{2}$  thalers..102 66

## COESLIN.

Day-laborer on estate receives as emoluments—

Dwelling and garden, value .....	10 thalers..	\$7 20
Fuel, value .....	6 thalers..	4 32
1 morgen rye, 5.10 scheffel, value .....	6 $\frac{1}{2}$ thalers..	4 80
1 morgen oats, 8 scheffel, value .....	5 $\frac{1}{2}$ thalers..	3 84
1 morgen potatoes, 60 scheffel, value .....	15 thalers..	10 80
Pease and linseed .....	2 thalers..	1 44

Feed for 1 cow, value.....	10	thalers..	\$7 20
4 sheep, value.....	4	thalers..	2 88
Share in pigs, value.....	9	thalers..	6 48
Poultry, value.....	1	thalers..	72
Total.....	69	thalers..	49 68

The laboring man received in summer, per day,  $\frac{3}{4}$  thaler, (9½ cents,) and in winter,  $\frac{1}{2}$  thaler, (6 cents,) which for 140 and 84 days respectively; and his wife, per day, at  $\frac{1}{4}$  thaler (6 cents) in summer, and  $\frac{1}{8}$  thaler (5 cents) in winter, for 120 and 60 days respectively, makes.....39½ thalers.. 28 56

Total earnings.....108½ thalers.. 78 24

The condition of labor is similar in other districts of the state, and the total earnings and cost of subsistence vary but slightly.

## COST OF LIVING IN 1872-'73.

*Average weekly expenditures of two families, consisting, respectively, of two adults and two children and two adults and four children, in the town of Barmen, Prussia.*

Articles.	Four persons, 1872.	Six persons, 1873.	Articles.	Four persons, 1872.	Six persons, 1873.
Flour and bread.....	\$0 72	\$0 86	Fuel.....	\$0 19	\$0 28
Fresh, corned, salted, and smoked meats.....	60	96	Oil or other light.....	10	07
Lard.....	20	24	Spirits, beer, and tobacco, (if any).....	48	12
Butter.....	13	36	House-rent.....	48	48
Cheese.....	16	.....	For educational, religious, and benevolent objects.....	38	12
Sugar and molasses.....	10	12	Total weekly expenses.....	5 76	5 54
Molasses or sirup.....	18	.....	Clothing per year.....	14 40	64 80
Milk.....	14	33½	Taxes per year.....	2 16	1 44
Coffee.....	32	38	Weekly earnings of husband and wife, (the wife earning three thalers in each case).....	6 48	7 20
Fish, fresh and salt.....	10	.....			
Soap, starch, salt, pepper, vinegar, &c.....	14	19			
Eggs.....	.....	19			
Potatoes and other vegetables.....	1 34	84			

*Average weekly expenditures of two families, each consisting of two adults and three children, in the town of Essen, Prussia.*

Articles.	1872.	1873.	Articles.	1872.	1873.
Flour and bread.....	\$0 79.2	\$0 86	Fruit, green and dried.....	\$0 08.6	\$0 09½
Fresh, corned, salted, and smoked meats.....	84	84	Fuel.....	19.2	22
Lard.....	19.2	33½	Oil or other light.....	16.8	17
Butter.....	43.2	48	Other articles.....	21.6	21½
Cheese.....	07.2	07	Spirits, beer, and tobacco, (if any).....	33.6	33½
Sugar and molasses.....	07.2	07	House-rent.....	50.4	60
Molasses or sirup.....	07.2	07	For educational, religious, and benevolent objects.....	08.6	09½
Milk.....	14.4	21½	Total weekly expenses.....	5 20	5 88
Coffee.....	12	24	Clothing per year.....	50 40	50 40
Fish, fresh and salt.....	02.4	05	Taxes per year.....	5 76	5 88
Soap, starch, salt, pepper, vinegar, &c.....	16.8	17	Weekly earnings.....	6 60	7 32
Eggs.....	08.6	07			
Potatoes and other vegetables.....	60	60			

*Average weekly expenditures of two families consisting, respectively, of two adults and three children, residing in the town of Aix-la-Chapelle; and two adults and two children in the town of Düsseldorf, Prussia.*

Articles.	Four persons, Düsseldorf, 1873.		Articles.	Four persons, Aix-la-Chapelle, 1872.	
	Four persons, Düsseldorf, 1873.	Five persons, Aix-la-Chapelle, 1872.		Four persons, Düsseldorf, 1873.	Five persons, Aix-la-Chapelle, 1872.
Flour and bread.....	\$0 72	\$1 10	Spirits, beer, and tobacco (if any)	\$0 36	\$0 68
Fresh, corned, salted, and smoked meats.....	67	92	House rent.....	84	94
Butter.....	36	45	For educational, religious, and benevolent objects.....	10	.....
Cheese.....	18	30	One child at school.....	.....	.....
Sugar and molasses.....	18	16	Total weekly expenses.....	4 44	5 93
Milk.....	18	64	Clothing per year.....	10 70	20 70
Coffee.....	5	.....	Tax per year.....	1 10	.....
Fish, fresh and salt.....	14	9	Weekly earnings of father and son.....	.....	9 66
Soap, starch, salt, pepper, vinegar, &c.....	14	14	Weekly earnings of father, working for himself.....	5 04	.....
Eggs.....	40	35			
Potatoes and other vegetables.....	17	23			
Fuel.....	9	11			
Oil or other light.....					

*Average weekly expenditures of two families, each consisting of two adults and three children, respectively, of the town of Chemnitz, Saxony, and the city of Berlin, Prussia.*

Articles.	1872.		Articles.	1872.	
	Chemnitz.	Berlin.		Chemnitz.	Berlin.
Flour and bread.....	\$0 62	\$0 78	Potatoes and other vegetables.....	\$0 36	\$0 38
Fresh, corned, salted, and smoked meats.....	47	1 13	Fruits, green and dried.....	12	10
Lard.....	08	24	Fuel.....	24	48
Butter.....	58	36	Oil or other light.....	03	13
Cheese.....	05	10	Other articles.....	07	07
Sugar and molasses.....	03	12	Spirits, beer, and tobacco (if any)	15	55
Molasses or sirup.....	02	02	House rent.....	36	1 08
Milk.....	15	12	For educational, religious, and benevolent objects.....	11	.....
Coffee.....	15	14	Total weekly expenses.....	3 87	6 07
Tea.....	05	.....	Clothing per year.....	24 96	28 80
Fish, fresh and salt.....	17	13	Taxes per year.....	3 60	7 30
Soap, starch, salt, pepper, vinegar, &c.....	06	14	Weekly earnings.....	4 68	6 48
Eggs.....					

*Average weekly expenditures of two families, consisting, respectively, of two adults and four children, in 1873, and two adults and three children, in 1872, in the city of Dresden, Saxony.*

Articles.	1873.		Articles.	1872.	
	Six persons, 1873.	Five persons, 1872.		Six persons, 1872.	Five persons, 1872.
Flour and bread.....	\$0 72	\$1 15	Fruits, green and dried.....	.....	\$0 32
Fresh, corned, salted, and smoked meats.....	48	60	Fuel.....	\$0 24	35 32
Lard.....	08	08	Oil or other light.....	.....	.....
Butter.....	80	80	Other articles.....	24	24
Cheese.....	05	05	Spirits, beer, and tobacco (if any)	48	24
Sugar and molasses.....	06	06	House rent.....	15	12
Molasses and sirup.....	02	02	For educational, religious, and benevolent objects.....	.....	.....
Milk.....	25	15	Total weekly expenses.....	3 20	5 76
Coffee.....	15	08	Clothing per year.....	28 00	40 00
Tea.....	08	08	Taxes per year.....	48	2 88
Fish, fresh and salt.....	02	09	Weekly earnings of father and daughter.....	7 20	(*)
Soap, starch, salt, pepper, vinegar, &c.....	02	09			
Eggs.....	48	64			
Potatoes and other vegetables.....					

\* Unknown.

*Average weekly expenditures of two families, consisting, respectively, of two adults and two children, in the town of Stuttgart, Württemberg, in 1873; and two adults and five children, in the city of Munich, Bavaria, in 1872.*

Articles.	Four persons, Stuttgart, 1873.	Seven persons, Munich, 1872.	Articles.	Four persons, Stuttgart, 1873.	Seven persons, Munich, 1872.
Flour and bread.....	\$1 06	\$0 48	Fruits, green and dried.....	\$0 08	.....
Fresh, corned, salted, and smoked meats.....	75	80	Fuel.....	46	\$0 56
Lard.....	26	20	Oil or other light.....	10	20
Butter.....	15	20	Other articles.....	06	40
Cheese.....	20	20	Spirits, beer, and tobacco (if any).....	25	1 20
Sugar and molasses.....	21	28	House rent.....	1 75	40
Molasses or sirup.....	.....	.....	For educational, religious, and benevolent objects.....	40	.....
Milk.....	40	76	Total weekly expenses.....	6 93	6 70
Coffee.....	14	30	Clothing per year.....	35 00	16 00
Soap, starch, salt, pepper, vinegar, &c.....	20	20	Taxes per year.....	1 60	.....
Eggs.....	18	12	Weekly earnings.....	8 00	8 00
Potatoes and other vegetables.....	28	60			

*Average weekly expenditures of a family consisting of two adults and two children, in Frankfurt-on-the-Main in 1873.*

Articles.	Cost or value.		Articles.	Cost or value.	
	Fl. kr.			Fl. kr.	
Flour and bread.....	1 48	\$0 76	Potatoes and other vegetables ..	1 48	\$0 32
Fresh, corned, salted, and smoked meats.....	2 0	80	Fruits, green and dried.....	1 12	08
Lard.....	48	32	Oil or other light.....	12	08
Butter.....	12	08	Other articles.....	.....	.....
Cheese.....	.....	.....	Beer and tobacco (if any).....	18	12
Sugar.....	.....	.....	House rent.....	2 12	88
Molasses or sirup.....	40	24	For educational, religious, and benevolent objects.....	.....	.....
Milk.....	48	32	Total weekly expenses.....	10 22	4 16
Tea.....	.....	.....	Clothing per year.....	50 00	20 00
Fish, fresh and salt.....	06	04	Taxes per year.....	1 45	30
Soap and starch.....	06	04	Weekly earnings.....	.....	5 60
Salt, pepper, vinegar, &c.....	12	08			
Eggs.....	.....	.....			

*Statement showing the annual earnings and expenditures of the thirteen German families whose weekly expenditures are given in the foregoing tables.*

Number of weekly list.	Earnings.	Expenditures.			
		Provisions, house-rent, &c.	Clothing.	Taxes, &c.	Total.
1.....	\$336 96	\$299 52	\$14 40	\$2 16	\$316 08
2.....	374 40	289 64	64 80	1 44	355 88
3.....	343 20	270 40	50 40	5 76	326 56
4.....	360 64	305 76	50 40	5 88	362 04
5.....	262 08	230 88	10 70	1 10	242 68
6.....	502 32	308 36	(*)	(*)	308 36
7.....	243 36	201 24	24 96	2 60	224 80
8.....	336 96	315 64	28 80	7 20	351 64
9.....	374 40	171 08	28 80	4 4	200 36
10.....	1374 40	296 40	40 00	2 20	338 60
11.....	416 00	360 76	35 00	1 60	396 96
12.....	416 00	348 40	16 00	.....	364 40
13.....	291 20	262 08	20 00	30	282 38
Average.....	357 84	281 52	32 02	2 79	313 44

\* Not stated.

† Estimated.

### III.—CONDITION OF LABOR IN GERMANY.

Having in the preceding pages presented, first, the rates of wages which obtained at different periods in the various industries of the principal towns of the great German Empire; second, the prices of provisions and other articles of necessary consumption as well as the weekly expenditures of the working people, the third and not least important division of the subject will now be considered, viz: *The material and moral condition of the workmen and their families.*

Before presenting original data, personally obtained in the year 1872, and through the instrumentality of others in subsequent years, it may be well in further illustration of this branch of the subject to give some statements from trustworthy sources in reference to the condition of labor in previous years. The following information, chiefly obtained in 1870-71, is condensed from British consular reports:

#### CONDITION OF LABOR IN PRUSSIA IN 1870.

Before the revolution of 1848 the improvement of the condition of the working classes in Prussia was looked upon as a question which concerned the philanthropist more than the statesman. That revolution, with its confused aims and utopian legislation, effected nothing permanent toward the accomplishment of such a result.

In the year 1861 a strong attempt was made by the workmen's unions to bring about a combined action and a closer cohesion between them for the purpose of promoting their common interests. The attempt failed in its immediate object, but it had one important result; it established the conviction among the working classes that it was only by intimate union and co-operation that improvements in the social and economical condition of the working classes could possibly be effected. These unions still continue to hold annual meetings, but less attention seems to be paid to them than formerly.

The socialist agitation in this country is a purely negative one. It signalizes itself by hostility to every practical reform, utter indifference to popular education, and a feeble interest in political progress of any kind. One exception to the negative policy of the socialist party of late has been the encouragement and organization of strikes. In many instances these strikes have ended by the workmen obtaining an increase of wages, and the confidence of the socialist party in their power has been increased in consequence; but the fact is that in most cases where the strikes have been successful public opinion had already declared itself in favor of the workmen.

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The practice of traveling, or "wandering" as it is termed, for the purpose of completing his technical education, is still regarded by the German journeyman as an indispensable portion of his training. The young lad, released from his apprenticeship, leaves the house of his master and travels abroad wherever the German language is spoken. He usually, however, visits those towns which have a special reputation for excelling in his own particular branch of trade, and taking up his residence there endeavors not merely to obtain a livelihood but also, and more especially, to complete his technical education and to become a skillful workman.

Some journeymen who have got the means of doing so and have a talent for acquiring foreign languages, widen their experience by traveling beyond the limits of the fatherland. Numbers of enterprising journeymen leave every year to visit the watch-making-establishments of the Jura, the machine-manufactories and lockmaking-works of England, the arms and gun factories of Liege, and the industrial establishments of Lyons, Brussels, and, above all, Paris. Many of them remain some years or permanently settle in these places, and, true to their German habits of thrift and industry, generally thrive. They are as a rule, however, the *élite* and most intelligent of the class of journeymen, and their success therefore is less to be wondered at.

Among the large towns which have a special reputation for excelling in particular branches of industry may be mentioned Munich, renowned for its brewers and saddlers; Dresden for its tailors, (the Tailors' Academy at Dresden is much frequented by foreigners;) Cologne and Munich for their stone-cutters; Barmen (Elberfeld) for its fringe-makers; Berlin and Vienna for their locksmiths; Iserlohn for its bronzes, &c. Leipzig also is considered the best school for teaching the polygraphic art in all its branches.

## MINING.

Among the working classes in Prussia the miners and iron-workers hold an exceptional position, inasmuch as their welfare and interests are attended to by the Government officials who are appointed to superintend all the mines, iron-works, and salt-works in the kingdom. This class of the laboring population is animated by an honorable *esprit de corps* dating from the earliest times, and forming a singular exception to the egotistical tendencies prevalent among the working classes of the present day. The great importance naturally attached to the conservation of so able and staunch a race of workmen as these miners and iron-workers has induced both the State and the private owners of the larger works to provide suitable dwellings for them, and to make such general provision for their comfort and well-being as to make their lot an enviable one in comparison with many of their fellow-laborers. They seldom, however, succeed in amassing any considerable savings, and some of them emigrate from time to time to other countries where the mining industry is on a smaller scale than here.

## HOURS OF LABOR.

Throughout nearly the whole of Prussia, artisans, journeymen, and apprentices work regularly in summer from 5 a. m. to 12, and from 1 p. m. to 7, and even later; and in winter, from daybreak, sometimes from 6 a. m. to 8 or 9 in the evening. The hand-loom weaver frequently sits at his loom, employed in monotonous labor, for 16 hours in the day; and agricultural laborers have to work hard for 12 hours a day out of harvest-time, and during harvest-time for 14 hours. The same rule applies to farm servants.

The extreme length of the hours of daily labor is indeed one of the dark features of the condition of the working classes in Prussia, and generally throughout Germany. Night-work is especially injurious to young persons of both sexes, and indeed to females of all ages.

## FOREMEN.

Foremen of works in factories, managers of printing-offices, foremen of mines, and other such like head-men and overseers employed in industrial establishments, are considered more in the light of employes than of workmen, and in disputes between the masters and the men they generally side with the former. This intermediate class is certainly one of importance and influence in the social and economical questions which are constantly arising between the representatives of capital and labor, and yet it is by no means treated with the consideration which it deserves. The reason is that there is always an abundance of educated men in this country who are only too glad to be able to obtain employment of this kind. The salaries paid to persons of this class are just sufficient to provide them with the means of living in tolerable comfort, but they are considerably lower than what are paid to a similar class in every other country.

## PORTERS AND OTHER LABORERS.

Porters, loaders, packers, and such like laborers who are employed to do heavy work of all kinds, whether for commercial and industrial establishments, or in sea-ports and inland towns, or in connection with any branch of public traffic and transport, generally earn good and even high wages in this country, as the great physical strength required for this sort of labor is rare enough to prevent the labor-market from being overstocked. These people soon save a sufficient sum of money to enable them to set up an independent business as carriers, small shop-keepers, &c. Examples of this kind are numberless, but at the same time, drunkenness is the bane and ruin of many of them.

Day-laborers in the towns, men who work first for one person and then for another, are generally well off if they are known to a tolerably large circle of employers, as the wages paid this class of laborers in towns are high. If the laborer is known only to a few employers, he is very often left without work and falls into pauperism. They are employed both in town and country in cleaning the streets, in making roads and railways, felling timber, sawing wood, &c.

## WORKWOMEN.

Workwomen in the towns, including all those not employed in coarse manual labor, such as seamstresses, milliners, embroiderers, and the like, are divided into two classes differing from each other very much both as regards their material and social condition. Those who, from not being able to obtain private employment, are obliged to work for the large shops, clothing establishments, fringe-makers, &c., are miserably paid, owing to the demand for this species of employment being so much in excess of what is required to meet the wants of the public, in spite of the constant changes in the fashions. The bulk of workwomen of this class, unless they are very clever at work and have some means of their own wherewith to buy a sewing-machine, take to



prostitution. Workwomen of the other class, on the other hand, who succeed in getting a good private connection, go out to work in private houses or work at home, and are able to earn a comfortable subsistence and to save money. As a general rule their moral conduct contrasts favorably with that of their less fortunate fellow-workwomen.

#### DWELLINGS OF THE WORKING CLASSES.

It is almost impossible to describe in general terms the character of the houses occupied by the working classes in Prussia, varying so widely as they do in different localities. What may be true of the houses in one place is altogether inapplicable to those of another, and even of others in the same locality or in the neighborhood. The subjoined account, although necessarily imperfect, will serve to give an idea of the general class of habitations in which the laboring population lives.

In the large towns the artisan classes live almost exclusively in lodgings, and it is rarely that the independent artisan or small tradesman lives in a house of his own, whereas in the country and in the small towns the latter is more frequently the rule than the exception. The houses inhabited by the rural artisans, laborers, hand-loom weavers, &c., both as regards their structure and living arrangements, are generally of the poorest kind, especially in the eastern provinces. Laborers, factory operatives, miners, &c., are frequently obliged, even in the country, to live in lodgings or else in buildings expressly constructed for workmen by the large landed proprietors in the eastern provinces, and by the mill-owners and proprietors of mines and iron-works, and companies in the western provinces. In many districts in the west joint-stock building companies and co-operative building societies have been established with the object of supplying the want of proper dwellings in particular localities; they purchase land with the subscribed capital and erect dwellings suitable for workmen and their families, and then let them at a moderate rent, frequently with the option of purchase by the payment of a certain annual sum for interest and sinking-fund in addition to the rent.

#### CONDITION OF LABOR IN SILESIA.

In relation to the working classes in Lower Silesia, it is stated by a competent authority, that "the condition of the artisan population is, on the whole, a satisfactory one. Journeymen and factory operatives can earn competent wages without their strength being overtaxed by the hours of labor. The workmen employed in the industrial establishments situated in the plains are in peculiarly favorable circumstances. A great many of them are settled on little properties of their own, and nearly all employ themselves out of working-hours in cultivating the ground. They raise the greater part of the vegetables and potatoes for their own consumption. The working population is more and more disposed toward frugal household management, in order by careful economy to save money, without too far stinting themselves in respect to their bodily wants. One obvious consequence of this is that, owing to the moderation and sobriety of their mode of living, the workmen enjoy bodily health, at the same time that their moral condition is raised."

It is to be feared, however, that this rose-colored description applies to but a limited portion of the country.

Of the more important groups which constitute the working classes of Prussia, the hand-loom weavers of Middle Silesia, numbering about 30,000, are undoubtedly the poorest, the worst fed, and from their weak physical constitutions, which does not prevent them, however, from having large families, the least capable of raising themselves unassisted above their present condition. Some change for the better has been effected of late by the erection of large spinning and weaving factories, fitted with first-rate machinery, on the skirts of the mountains, attracted there no doubt by the cheapness and abundance of labor.

With respect to the employment of female labor in manufactories, owing to the rapid increase of population and the great development of industry, women are employed now to a much larger extent than formerly in the factories.

More than a fifth of the whole number of factory operatives are females, and considering that the greater portion of them are members of families, and that they receive comparatively good wages, they are decidedly well off in an economical point of view. Their moral condition, owing to the male and female operatives working indiscriminately together at the mills, is from all accounts much less favorable. The reports from the various provinces describe them as inordinately fond of pleasure and given to dissipation, adding that large numbers of them live a dissolute life, and have to bring up illegitimate children. Many of the mill-owners take particular care to keep the work-rooms of the sexes separate; but in some branches of manufacture this precautionary measure is impossible. The proprietors of the smaller class of manufactories show little inclination to incur expense by introducing the changes in the working of their establishments which the adoption of such a measure would render necessary.

The wages paid are for the most part sufficient to support single persons in comfort,

and if they are at all thrifty, they can save money and frequently do so; but they are insufficient to support a wife and children independently of what the latter earn themselves. The manufacturing population is pre-eminently deficient in the resolution, which distinguishes other industrial classes in this country, to strive to work their way up, even in spite of adverse circumstances, to comparative independence. The monotony of their daily labor seems to produce in them an inordinate longing for enjoyment, in the gratification of which they spend a considerable portion of their earnings and weaken their physical powers by dissipation.

The miners and iron-workers of Upper Silesia are almost exclusively Poles. They contrast unfavorably with the German workmen in their addiction to debauchery and dissipation, so much so that in many of the works where they are employed measures have been adopted for paying the weekly wages due them to their wives, to prevent them from squandering their earnings, instead of supporting their families.

## CONDITION OF LABOR IN PRUSSIA IN 1872.

REPORT OF MR. LEWIS, CONSULAR AGENT AT DÜSSELDORF.

### AGRICULTURAL LABOR.

Agricultural laborers in this district usually rent or buy a small cottage and small plat of ground, which they cultivate, usually keeping a goat or cow. If the latter, it is employed in plowing and hauling the little two-wheeled cart of the owner.

There are thousands of such small proprietors here, owning from a quarter of an acre to three acres, from which, with the aid of occasional work done for others, they manage to live. Their scale of living is very low compared to ours, and it is wonderful how they keep up their health and strength on such diet as they have. This is mostly vegetables, with occasionally a bit of pork or sausage, which is boiled with the soup or sort of stew which constitutes their main support. Coffee is universally used, but without milk or sugar, and made very weak, but it is drank three or four times a day. When working for any one their wages vary, according to the time of year and the kind of work they have to do, from twenty to twenty-nine cents per day. Most of the women of the family make or spin a piece of linen cloth each year sufficient for the needs of the family, and if they have sufficient black bread and potatoes they consider themselves well off. The children are all educated so far as they can read and write; and all the male population between the ages of twenty and twenty-six are liable to three years' military service. During this period they are probably better fed and clothed than in any other part of their lives; and, although they only get five cents per day as pay from the government, they learn habits of discipline, cleanliness, and order that stand them in good need after this service is ended. I find that drunkenness is rare among the rural population. They all drink either beer or schnaps, or both, but not to the excess we find in agricultural populations of other countries, and it is seldom they lose a day's work through this cause. They are orderly, civil, and very obliging in their manner, especially to strangers, and brawls or fights are of rare occurrence. In their way they are nearly all punctual in their religious duties; the Roman Catholic portion going to early church, and then amusing themselves the balance of the day in their restaurants or beer-gardens, or in making visits from one village to another. Between them and their pastor there is always great respect or regard, and he is in reality the father of his flock, and has to settle many grievances other than of a religious nature. The proportion of Catholics to Protestants in this part of Prussia is four to one. So far as I can learn their morals are good, and it is rare to find a man or woman thirty years old unmarried. Most of the men marry as soon as their military service is finished.

### WORKING CLASSES IN TOWNS.

The condition of the working classes in towns is not so good in a moral and religious point of view as that of the rural population, although their earnings are double as great. There are more temptations to spend money in towns, and it is mostly spent uselessly and foolishly. The dwellings are poor and dear, and the great rise in the last few years in the price of all house property has caused the rents of the poor to rise proportionally. None, or very few new houses, are built for the poor, and they are crowded in the old and inconvenient houses, where cleanliness and comfort are impossible. The price paid for two rooms varies of course according to their size and locality, and also to the stage or story on which they are situated. The lowest price would be \$2.88 per month, or ten cents per day, and from this to \$5.04 or \$5.76 per month. They live mostly on potatoes, black bread, and vegetables, but use more fresh meat than the country population.

The state of morals is lower than in the country, and may be accounted for by the state of overcrowding in lodging-houses, and the indiscriminate mixture of the sexes in

factories. On the whole, however, I consider their moral state better than would be found among the same class in most European communities.

The town populations are not so temperate as in the country, and among some trades *blue Monday* is the rule rather than the exception, and I consider that drinking to excess is on the increase, although nothing to compare with what the same habit is carried in England, Scotland, and Ireland. I spoke with the proprietor of a large rolling-mill who employs 250 hands, on this subject, and he told me that he had not had a case of drunkenness in his establishment for six months, and that not a single man had remained out on Monday for upward of three months. He accounted for the fact by saying that most of his hands were married men with families, and that they worked in *gangs* of six or eight, and that when one remained out it disarranged the work of those who worked with him. So also with a large wool-spinning factory that employs 200 hands. The proprietor told me that very few of his people were addicted to drinking, and it was rare that any were absent on Monday from work. The work-people do not, as a rule, look so strong and healthy as those in the country, as they do not get the same amount of fresh air and healthy exercise, although as a rule they live better. Compared to our working classes in the United States their state is far below them, both as regards living and wages; nevertheless I believe statistics would show that they are, on the whole, longer-lived.

Those trades most addicted to drinking are masons, tailors, and shoemakers, with some of the workers in iron. I omitted to mention that unmarried journeymen mechanics usually rent only a *bed* in a room with others, near where their work may happen to be, and for this they will pay from 5 to 6½ cents per night. When at work they do not generally board in the sense of our work-people, but buy a piece of bread, and sometimes a piece of smoked ham or sausage, and ground coffee to the value of, say, 2 cents. Each has his stone jug and cup, and then this is sent to the nearest shop, where they buy their provisions, with the ground coffee, and is filled by them with boiling water, and they sit about the work they may be doing in groups and take their breakfast. For dinner they generally take a glass of beer with their bread and meat or sausage, but never anything hot in the way of meat or soup. At 4 o'clock coffee is again taken with a slice of bread, and supper when the work is finished, same as dinner. I found that the three meals cost on an average 24 cents per day, and that each man generally expended 5 to 7½ cents a day for his spirits or schnaps. This schnaps can be bought from 14 to 20 cents the quart, and when good and taken in moderation, doctors have told me that it is not only not hurtful, but beneficial to the workman who lives on such a low diet and gets so little animal food that some stimulant is necessary. The married man has his dinner sent or brought to him by his wife or one of his children, but makes his own coffee as the unmarried ones do. To sit down to a regular and comfortable meal as we understand it, is not known among these people. In conclusion I should say that the condition of the working classes here, as to morals, temperance, and religion, would compare favorably with the same class in any part of Europe.

#### BARMEN, PRUSSIA.

Mr. Consul Hoechster, under date of September 13, 1872, writes as follows:

The condition of the work-people in my consular district is now tolerably good, as they have had plenty of work for several years. Their morals are quite satisfactory, but their comfort at home is very poor, in consequence of the unhealthy and small rooms in which they live. They have seldom houses of their own, and as rents are very high they are obliged to live in one or two small rooms.

I have found the family of a skilled mechanic, consisting of two adults and three children, living in two small rooms, for which they pay 40 thalers rent per year. To make a somehow comfortable living, the whole family—husband, wife, and children—have to work. They can earn about 10 to 12 thalers per week, but very seldom make any savings. They live from hand to mouth, and in times when business is dull and work scarce they depend mostly on the charitable institutions, which are very good in Elberfeld and Barmen.

#### DANTZIC, PRUSSIA.

Extract from a letter on the condition of the workingmen, received from Mr. Collas, consular agent, under date of Dantzic, September 7, 1872:

Workingmen in this part of the country mostly live very poorly and enjoy none of the luxuries of life, their limited earnings not permitting it. The best class of workmen, such as masons, carpenters, and other mechanics, are paid at the rate of \$4 per

week in the summer and somewhat less in the winter. The second class earns about 36 cents less, and the third class 72 cents less. There is another class of laborers, such as porters who carry the wheat into and out of the granaries, and others employed in the transport of timber, who earn at times double this sum; but on the whole they are not better off, as winter puts a stop, in a great measure, to this sort of business. Comfort is not known or attended to among these people, and a family—man, wife, and children—live in one room, which, with a sort of kitchen, is rented at about \$40 a year. Women are sometimes employed in different places, and earn about \$1.50 a week. Children are seldom employed before the age of fourteen, when they are either apprenticed and get their board and lodging, or if employed otherwise \$1 to \$1.33, according to their deserts and the nature of the employment. Education, although compulsory, is not much attended to among the lower classes, and morals are at a very low ebb.

There are several iron-foundries here, Portland-cement manufactories, breweries, &c. At Dirschau and Elbing there are also establishments of this description. Wages there are not quite so high as at Dantzic, but living is from 20 to 25 per cent. cheaper.

#### FRANKFORT-ON-THE-MAIN.

Letter from Mr. Consul-General Webster on the condition of the laboring classes:

CONSULATE-GENERAL OF THE UNITED STATES,  
*Frankfort-on-the Main, October 19, 1874.*

SIR: \* \* \* \* \* The laborers in Offenbach, near Frankfort, where an inferior class of work is produced, are of a lower order in the moral scale, idle, dissipated, and troublesome. In a place like this, where there is a large fixed population of workmen, what is called here social democracy, not unlike communism in Paris, has fixed its fatal grasp, which, while it promises to improve and elevate, actually impoverishes and degrades. The laborer is induced to believe that association will bring to him the prosperity which his own industry and temperate habits can alone secure.

When wages were lower and the laborer received less pay, although provisions were also somewhat lower, still the absolute necessities of life required the most, if not all that the laborer received, and there was less chance for intemperance. The increase, has not been all used in providing better food and clothing. The beer-house receives more than its proportion of the increase. This is illustrated by the greater irregularity of the workmen, the increase of the number of beer-houses, and the later and noisier carousals which often occur in the streets.

The German laborer lives very differently from the American laborer. If he is married he generally has a home in some of the small villages of Germany, from which issue every morning crowds of men and boys to the cities, and of women to the fields and farm-houses. If he is able to hire rooms in the cities, it is rare that the lower classes more than sleep at their homes. Like the villager, who lives too far to go and come every day, and like single men, they have only their sleeping-places, generally several in one room. They eat and drink where they happen to be. Wherever their work is for the time, they will make a little fire, boil their cheap coffee, buy their bread and cheap meat, generally sausages, and cook the same and make their meals in primitive style. They rarely go to the beer-house or restaurant for breakfast or dinner. The evening is generally spent at the beer-house until it is time to go to their beds in the villages or their sleeping-places in the cities. They have no boarding-places where, as according to our custom, the laborer takes his meals, sleeps, and passes his leisure time. In small manufacturing villages, where there is a fixed, permanent supply of labor, with little or no surplus, the operatives, having permanent employment, receive less pay and are steadier, as they are more dependent upon their employer. The German is not a hard-working man; that is, he does not produce much unless he is a farmer working upon his own land. The fact that women are compelled to work in the fields, doing every kind of work that ever the servile classes of the South were formerly compelled to do, shows great destitution or gross indolence on the part of the men. It is true that the condition of the laboring class has been very low throughout Europe. In Germany it has not changed much. With better wages, their ability to live better must be clear; still it is not plain to be seen where the increase is expended. It must be so well distributed that the gain is not apparent. The only class of Germans who seem to make great progress are the Jews. They, however, are rarely laborers or mechanics. They take to trade or business.

All children must attend school until they are 14 years of age. They are then put to labor until they are 19 or 20 years of age. Then they are called into the active army for three years. Young men able to undergo a certain examination are required to serve but one year. The exercise and training of every muscle of the body they then receive, and the forced habits of temperance they there undergo, make them strong

and healthy men, better fitted for toil and a long life than they could otherwise be. But habits of industry are not acquired. Relieved from restraint they are more jubilant. The attractions of dissipation make them unsteady. Still it cannot be doubted that the condition of every class of laborers is improving.

I am, sir, your obedient servant,

WM. P. WEBSTER,  
*United States Consul-General.*

In reference to the unsteady habits of the laboring classes, Mr. Webster, under date of September 22, 1873, writes as follows:

Labor has of late become so irregular and unsteady, that nearly every laborer now works by the piece or square. Contractors will reluctantly make a contract for a specific time or amount. A man, who employs 1,200 laborers, states that they scarcely labor four days per week, allowing for bad weather as well as absence from work from other causes.

#### CHEMNITZ, SAXONY.

The following reports on the condition of the laboring classes in Germany, and particularly in the consular district of Chemnitz, possessing, as they do, great interest, are presented in full. The one was prepared by Mr. Saville, chief clerk of the Treasury Department, who was then in Europe; the other by Mr. Cropsey, United States consul at Chemnitz.

#### REPORT OF MR. SAVILLE.

JUNE 18, 1874.

SIR: Referring to Department letter of November 4, 1873, in which I am instructed to procure for the Chief of the Bureau of Statistics, certain information in relation to the condition of labor in Germany, and particularly in Chemnitz, I have the honor to submit the following

#### REPORT:

The town of Chemnitz, which in 1871 contained about seventy thousand inhabitants, is situated in the midst of the most flourishing and extensive manufacturing district of Germany. More than two-thirds of the population of the town, and fully three-fourths that of the district, may be classed as laboring people. The principal industries of the section are the manufacture of cotton hosiery, machinery of all kinds, linen goods, toys, &c. Most of the hosiery goes to the American market. The agricultural laborers form but a small part of the population, and those whom I saw seemed to be less prosperous than the mill-hands and mechanics. Mr. Cropsey, our consul at Chemnitz, is of the opinion that, as a class, they are more so.

The laboring classes are generally industrious. The cost of maintaining an average family in the ordinary frugal manner of the country, exceeds the amount which a man with steady employment and average pay can earn, so that even though the natural tendency of the laborer was to be idle, his imperative wants would compel him to industry. I think, however, as a mass, the working classes of Germany are naturally industrious.

Intemperance, in the sense of drunkenness, is rarely met with in Europe, where an intoxicated man is a very unusual sight. The common liquor of Germany is beer, which is used to great excess. Ordinarily it does not produce intoxication. The annual amount of beer consumed is enormous, but very little time is lost from its effects. The most serious result of the excessive use of this liquor is the cost. I merely repeat the opinion of the best informed and most reliable authorities in Germany when I say that, taking the whole country together, the average amount spent by the lower and middle classes for beer is quite one-fourth of their earnings. The necessary consequence of this is that the comforts of the family, represented by the character of their houses and the quantity and quality of their food and clothing, are either very seriously abridged or are provided for by the labor of the women and children. And even this latter does not supply the waste, since the gross earnings of the head of the family, as I said before, do not meet the common wants of an ordinary frugal household, and the labor of the wife and children is necessary to make up the deficit.

As a general rule, the laborer is housed in poor, mean, and crowded quarters. Many families are found herded together in a single house, and but very few of them have more than one or two rooms. I was informed by a gentleman in Dresden that one of the large manufacturers of machinery in the district of Chemnitz had undertaken,

some years ago, to provide decent small houses for his mechanics and laborers, to be rented to them at an annual rate of 4 per cent. on their cost. The experiment was a failure, because the rent was nearly double what they paid for the miserable one or two rooms they had been wont to occupy, and to have made the improvement in this feature of their condition, economy in beer would have been necessary. These houses, built with a view of comfortably accommodating a single average family, are now occupied by two and sometimes by three and four families.

One of the most noticeable features of the homes of the laboring classes, not only in Germany but throughout those parts of Continental Europe which I have visited, is their squalor and wretchedness. Most of those I looked into were meanly furnished, even wanting what in America would be considered the indispensable furniture and utensils of the poorest household. Their common condition was dirty, dingy, and comfortableless to the last degree.

The food of the laborer and his family usually consists of a substitute for coffee made from chicory, and coarse black bread in the morning and evening, and a cheap soup made from vegetables, with black bread, at noon. Occasionally they will have a piece of meat, but, generally, this would not happen more than once a week. Recently there has been established in Chemnitz a market for the sale of horse-meat, which, being comparatively cheap, gives them more for their money or enables them to get it oftener than formerly.

The advance in wages which occurred between 1870 and 1872 was accompanied by an equal, if not greater advance in the price of all the actual necessities of life, so that the result has not been to the benefit of the workmen and their families. Recently wages have fallen 20 to 25 per cent. without a corresponding fall in the price of food, and the consequence has been widespread suffering and want. I do not think an increase of wages, even when not accompanied by an increase in the price of food, would result in any improvement in the comforts of the workmen or their families. They are accustomed from childhood to coarse and meager food, and do not ordinarily care for more or better. When wages go up, therefore, the extra money earned goes to the beer-shop to pay for what they consider the one great luxury of life, plenty of beer.

Perhaps the hardest condition of the laborer of Germany, and in fact of all Europe, grows out of the enforced military service from all persons capable of bearing arms. It means the absolute loss of not less than three years out of the productive period of every able-bodied man's life, during which the pay is scarcely enough to supply the beer consumed by the soldier. As a consequence, the family is deprived of all support from this source; and when the soldier is the head of a family, as he not unfrequently is, they struggle through a period of wretchedness and poverty beyond description.

The foregoing covers all the points of inquiry in Department letter, and, I believe, is a fair statement of facts as far as I had time to investigate the subject. I inclose a letter from the consul at Chemnitz, in which he has, at my request, answered the several questions asked in the memorandum of the Bureau of Statistics.

Very respectfully,

J. H. SAVILLE.

Hon. B. H. BRISTOW,  
*Secretary of the Treasury.*

REPORT OF MR. CONSUL CROSEY.

UNITED STATES CONSULATE,  
*Chemnitz, Saxony, May 11, 1874.*

SIR: In complying with your request to furnish information concerning the condition of the working people in this consular district, I wish to say Chemnitz is situated in the midst of an exclusive manufacturing district. Of the 86,000 inhabitants in this city more than 50,000 belong to the working class, and are operatives in the numerous factories and machine-shops, one alone employing over 4,000 men. Therefore, the answers to questions asked will have more particular reference to this class of the community.

The peasantry are the farmers; however, farming in this country partakes very much of gardening, the women always sharing the labors of the field. These people are hived in a cluster of shanties that are dignified with the name of village—*each supporting a beer-saloon and a church*. The lands belong to wealthy families, and are rented out in patches to the peasants. They are generally a more prosperous people than those engaged in the manufactories.

Question first. *Are the working classes industrious?*

Poverty necessitates industry to a limited extent. They do not and cannot lay up anything for the future, and the loss of a day's labor thrusts them on the verge of

beggary. The instances are indeed rare where a workingman has secured a competency sufficient for the support of himself and family, and has risen above the common herd.

Question second. *Are they intemperate, and, if so, do they lose much time in consequence?* Intemperance prevails to a certain degree. Beer is the popular beverage, and everybody indulges. Alcoholic drinks are above the reach of the poor, or drunkenness would be more common. The system becomes accustomed to the beer, and judging from the quantity one man (a native) can consume, I apprehend that one will stagger quicker from the weight than the strength of the potion.

Third. *Are the comforts of their families seriously abridged by the amount spent by the men in drink?*

In many instances they are. The military law, rigidly enforced, requiring three years' active service from every able-bodied man on the completion of his nineteenth year, frequently works a hardship where there is but a single son in the family.

Fourth. *What is the condition of the rooms they occupy?*

They are deplorable. Families are stowed away together in dirty, dingy, vermin-breeding alleys, attics, and cellars.

Fifth. *Do many families live in one or two rooms only?*

A vast majority of the whole do.

Sixth. *Has the recent advance in wages resulted to the advantage of the families of the workmen?*

The price of living, the simple necessities of life, has advanced in equal ratio with wages. At present there is a decline in the price of labor, attributable to the falling off of foreign trade, and as a natural consequence actual suffering is wide-spread.

The chief meal of the average artisan consists of a few potatoes and unbolted rye-bread, washed down with cheap beer, with the occasional addition of a few ounces of horse-meat.

A stupid nature, and dull ambition, with the inborn idea that they will labor all their lives as their fathers did before them, makes the working class of some portions of Germany perpetual slaves to poverty, and the day is far off when they shall be emancipated from this thralldom.

I forward you a report of the Chemnitz Chamber of Commerce for 1871, and a similar report issued by the city of Plauen for the year 1873, which will give you further information.

With great respect, I am, sir, yours, &c.,

LOUIS E. CROPSY,  
United States Consul.

Hon. EDWARD YOUNG,  
Chief of Bureau of Statistics, Washington, D. C.

LEIPSIC, SAXONY.

Mr. Consul Steuart writes as follows, in reference to the habits of industry and temperance among the working class :

"From observation of the laboring class in Leipsic, I should say that they are obliged to be industrious in order to live; that beer is their principal beverage, and intoxication is not often seen on the streets."

#### PAUPERISM IN SAXONY.

The following statements in regard to pauperism, and to the food and lodging of the working class in Saxony, are condensed from the British consular reports :

The number of paupers in Saxon poor-houses on a given day in three different years was as follows :

Year.	Poor-houses.	Male paupers.	Female paupers.	Total paupers.
December 3, 1858.....	2,540	10,817	13,019	23,836
December 3, 1861.....	10,047	12,256	22,303	
December 3, 1864.....	2,535	7,967	9,617	17,584

It has been calculated for 1861 and 1864 that out of 100 of each of the following classes of workmen in towns, the following were paupers :

Class.	1861.	1864.
	<i>Per cent.</i>	<i>Per cent.</i>
Master mechanics .....	15.88	14.43
Master journeymen .....	19.03	12.96
Sedentary workmen .....	16.81	21.95
Factory operatives .....	2.57	2.25
Daily laborers.....	32.12	31.58

The chief causes of pauperism are ascertained to be idleness, evil habits, and drunkenness.

#### FOOD AND LODGING.

The diet of the Saxon is simple, and not unhealthy. It consists chiefly of rye-bread, butter, bacon-fat, pork, sausage, beef and veal, potatoes, cabbage in great variety, dumplings, and soups. The meat most in use is pork, being as cheap as beef and more substantial. Beer is smaller than in England, but good and healthy. Of that any amount may be drank; not so of ardent spirits, in the use of which caution is greatly to be recommended.

The rooms in which workingmen live are usually healthy, being chiefly in the upper stories, and seldom under fifty yards in area. In lodging-houses, however, the healthiness of the rooms is in exact proportion to the number of beds, whether two or four or more, that are introduced into them. The Saxon bed is short and narrow, and its furniture is an Indian-grass mattress, a wedge pillow with straw stuffing, and a feather bed.

#### LABOR AND OTHER ASSOCIATIONS IN CHEMNITZ.

In connection with the two foregoing reports in reference to the condition of the laboring class of this seat of industrial activity, it may be well to present the following translation of a statement in relation to the large number of associations which have been established by the working people for mutual benefit and protection, and for their advancement in technical and general knowledge :

The commercial and industrial district of Chemnitz, in Saxony, to an area of 770,045 German acres has a population of 789,183 inhabitants, a large majority of whom are working in or for the numerous establishments engaged in the various trades and industries represented in that district.

This large number of people, living upon their daily earnings without being able to accumulate a sufficient amount to last them longer than a month or two when misfortune of any kind overtakes them, have been induced for this reason at first, (and also owing to their social disposition,) as also their taste for knowledge, to establish as many institutions and associations as there are trades; these are called the trades-unions and labor associations.

These associations are based on so many different plans and made to serve so many various purposes, that every want and need is provided for, and since they are mutual associations, are productive of decided benefits to the individual as well as to the community.

The membership of these associations, whose special object is the organization and support of industrial schools, both for the young and the aged, and the establishment of mutual savings and sickness-funds, is constantly on the increase; nor do they restrict themselves to their first object, but they continue to develop and enlarge their respective fields of action, and already several among them have instituted branches of so-called "associations for protection against malicious debtors."

The principal associations in the district of Chemnitz are those limited to making advances of money to members after a certain period of membership, or on personal security, a period of from one to six months at  $\frac{1}{4}$  to 2 per cent. interest. These were sixty in number, with an aggregate membership in 1870 of 20,075, and a deposit and interest-fund of \$2,542,395, and outstanding advances to the amount of \$8,074,801. Next in order are the mutual savings associations, fifty-one in number, with 129,534 depositors in 1870; amount of deposits \$3,735,949; the smallest deposit being from six to ten cents, paying from 3 to  $4\frac{1}{2}$  per cent. interest.

Consumption associations number twenty-one, with a membership of 5,191 and a clear profit of \$12,525 in 1870.



Industrial associations and associations to promote mental culture number thirty-five, and have libraries aggregating nearly 10,000 volumes, pamphlets and periodicals, and about 50,000 members with lecture courses on scientific, industrial, commercial and other subjects and annual contribution fee ranging from 24 cents to 90 cents.

### DRESDEN, SAXONY.

The following report of Mr. Consul Brentano, on the condition of the working-classes in Saxony, with the accompanying tables showing the consumption of bread and beer during the six years from 1868 to 1873, inclusive, will be read with interest :

UNITED STATES CONSULATE,  
Dresden, October 9, 1874.

In regard to the information you request, I desire first to state that Dresden cannot be classed among the manufacturing or industrial cities. Being the capital of the kingdom of Saxony, and the residence of the reigning dynasty, the erection of manufacturing or other industrial establishments in the city, or its immediate neighborhood, was, till of late, in no way encouraged.

Devoted to the culture of the fine arts, of science, music, and literature, Dresden has, through its fine collection of paintings, works of sculpture, and public gardens, acquired a world-wide reputation, and attracted strangers from all parts of the globe. Wealthy people of different nationalities have taken up their residence here either permanently or temporarily, to enjoy the amenities of culture and refinement. Under such circumstances it is not to be wondered at that the smoke-stack of industrial establishments and the noise of the steam-hammer were no very desirable accessories to the state capital. But the steamships on the river Elbe, which divides the city in two parts, the old and the new city, (Altstadt and Neustadt,) and which is navigable from a point a little above Prague, in Bohemia, to Hamburg, on the German Sea, and the iron-horse on the land, were irresistible in opening even the city of Dresden, euphemistically called "Elbe Athens," to the inroads of an industrial era.

Although in the last few years quite a number of new industrial establishments were founded, or such establishments already existing were enlarged, and although there are in the city, or its immediate neighborhood, establishments for the manufacture of tobacco and cigars, for mechanical purposes, for machineries, for chemical manufactories, steam brick-yards, cotton-spinneries, dyeing establishments, breweries, printing-houses, in which establishments several thousand laborers find employment, yet these men who work in such establishments are only a small portion of the laboring class of this city.

In consequence of the establishment of the German Empire and a German citizenship giving every German the right to settle anywhere in the "Fatherland," there was, in late years, quite an influx of population into the larger cities, and especially into Dresden, the population of which has now nearly reached the second hundred thousand. This necessitated the erection of many new buildings, thereby attracting operatives in the building-line, as masons, stonecutters, bricklayers, joiners and carpenters, locksmiths, tilers and slaters, plasterers, painters, whitewashers, &c. To these may be added other workmen of skilled labor, tailors, shoemakers, tanners, cabinet-makers, and piano-makers. For the production of fine and elegant furniture, especially carved and inlaid furniture of excellent workmanship, and for the manufacture of highly finished pianos, the city of Dresden enjoys an excellent fame.

The wages of the laborers had reached their highest scale in the period of 1871-1873 but have, in consequence of the crisis which commenced in the autumn of 1873 and which has continued more or less up to the present time, somewhat declined. If the consequences of that crisis have had a less detrimental effect upon the laboring classes of Dresden, the causes may be found in the fact that Dresden is not a manufacturing or industrial city in the common sense of the word, as above shown; and, therefore, not so much affected by a general crisis as places having a preponderance of factory population.

In addition to these causes it may be observed that during the last year, when there was some relaxation in private building enterprises, as compared with the two previous years, a great many public buildings were being erected. I mention here the erection of extended military buildings, barracks for the quartering of several regiments of soldiers, an extensive polytechnic school, a new royal opera-house in the Altstadt, on the site of the one burned in 1869, a royal theater in the Neustadt, extensive docks along the Elbe, and large water-works. The latter necessitated the laying of water-pipes all over the city, as up to the present time the water-supply of Dresden was of a very primitive nature. As another cause, I may mention that the high state of agri-

culture around Dresden, and the many improvements in this important branch of the national resources, gave employment to all laborers who could not find such in the city proper, and the high prices of the farm-products enabled the farmers to pay good wages. A new railroad, in progress of building from Dresden to Berlin, also gives employment to a great many skilled and common laborers.

As regards the industry of the laboring-classes, it is known that the Germans generally are a laborious and saving people, and the same may be said of the laborers of Dresden and the surrounding country. In 1871 the average rise in the price of labor was about 50 per cent. ; in some branches even more ; and the effect of it may be shown by the fact that since that time the consumption of bread, meat, and beer has increased considerably.

I am indebted to Dr. Janasch, the director of the newly-established bureau of statistics of the city of Dresden, for some very interesting statistics in regard to the consumption of the above-named articles. As the city of Dresden levies a small import duty (octroi) on all eatables and drinkables at the barriers, it can be easily ascertained how much is consumed in the city. The following table gives the number of inhabitants during 1868-1873, inclusive, the percentage of the increase of the population, the consumption of meat in the city, the consumption per capita, and the percentage of the increase of consumption :

Year.	Number of inhabitants.	Per cent. of increase of population.	Consumption of meat.		Per cent. of the increase in the consumption of meat.
			By the whole population.	Per capita.	
			<i>Pounds.</i>	<i>Pounds.</i>	
1868 .....	154,308	.....	17,880,104	115.86	.....
1869 .....	159,383	3.28	19,536,952	122.57	9.3
1870 .....	164,456	3.18	20,632,214	125.45	5.6
1871 .....	169,530	3.08	22,731,164	133.97	11
1872 .....	174,604	3.99	24,570,036	140.72	8.3
1873 .....	179,678	3.09	26,340,750	146.60	7.3

The table annexed, marked A, shows the import and export of wheat and rye flour, and of bread, and the consumption of these articles by the whole population and per capita. While the increase in the consumption of the cereals kept step with the increase of population, the consumption of meat increased in a higher ratio, which shows that the circumstances of some people have greatly improved, and it may be contended that it was the laboring classes who, by the higher wages which they earned, were enabled to live in a better and more substantial manner.

In regard to the habitations, the mode of living of German laborers compares very unfavorably with the condition of American workmen. While a great many of the American laborers, especially the skilled class, reside in neat, comfortable cottages mostly their own, the workmen here, as a general rule, live in tenement houses in the suburbs of the city. I speak here of the permanent resident class. The fluctuating laboring population which comes in from the country remains in the city during the week, and returns to their families on Saturday, put up at sleeping-places, (schlafstellen,) where often quite a number occupy one and the same apartment.

As a whole, the German laborers here are temperate. An exception to this rule may be found under that class of workmen which I have just described, who have no home here, and who consequently resort to beer and liquor saloons. The consumption of beer has of late considerably increased, (as is shown by the annexed statistical table marked B,) and there is no doubt that the laboring classes figure to a great extent among the consumers of this Teutonic beverage. But it would be a serious mistake to conclude, from this increase in the consumption of beer, that among the laboring classes intemperance was on the increase. On the contrary, beer is considered by the German as a nourishment, and in the same ratio as the consumption of beer increases, the use of that most pernicious beverage, distilled liquor, must necessarily decrease. My experience is (and many Americans, some of whom were strictly abstinence men, who made observations on this subject, entirely agree with me) that a more quiet Sunday cannot be found than here, although beer-saloons and beer-gardens are on that day crowded by the laboring classes and the small business men and their families. An exception to this rule will be found among those laborers who are single men, or who are here without their families, occupying such sleeping-places as I have above described.

As regards the education of the laboring classes, I desire to state that popular education in the Kingdom of Saxony, as in the other states composing the German Empire, is a compulsory one. Quite inconsistently with this system of compulsory education is the fact that they have here no system of free schools. The idea of the only true statesmanship, that it is the duty of the whole community to educate the rising population, has not yet penetrated into the German states. Only the two model republics, the United States of America and the Swiss Confederacy, have a system of free schools. In Saxony the parents are compelled to send their children to school till they have reached a certain age, generally fourteen years, and they are, at the same time, obliged to pay a tuition fee, and for the school-books and writing-material. That this is very frequently a great hardship for poor people is self-evident. The common schools here are certainly not superior to the public schools in the cities of the United States, as, for instance, Boston, New York, Philadelphia, Chicago, Cincinnati, Saint Louis, Milwaukee, &c. On the contrary, I find that the studies in our schools have a wider and more liberal range. I will only observe here that the children of the Catholics are educated in different schools from those of the Protestants and Jews, because not only the moral teachings of religion, but also the dogmas of the different recognized denominations, form a part of the lessons in the public schools. In some parts of Germany they have recently commenced to establish non-denominational, or mixed schools, in which all the children, regardless of their denominational character, congregate and are taught the doctrines of Protestant or Catholic Christianity, or Judaism, by the respective professors of those creeds; but in Saxony the distinction of the different denominational schools was sanctioned by a law which was promulgated the present year.

I give it as my opinion that the advance of wages during the past few years has resulted in benefit to the laborers and their families.

I am, sir, your obedient servant,

LORENZO BRENTANO,  
*United States Consul.*

HON. EDWARD YOUNG,  
*Chief of Bureau of Statistics, Washington, D. C.*

Tables showing the quantity of wheat and rye flour and bread imported, exported, and consumed, and also the quantity of beer produced, imported, exported, and consumed, in Dresden in the years from 1868 to 1873, inclusive.

Articles.	1868.		1869.		1870.		1871.		1872.		1873.	
	Quantity.	Percentage of increase or decrease.	Quantity.	Percentage of increase or decrease from 1868.	Quantity.	Percentage of increase or decrease from 1869.	Quantity.	Percentage of increase or decrease from 1870.	Quantity.	Percentage of increase or decrease from 1871.	Quantity.	Percentage of increase or decrease from 1872.
<b>A.—FLOUR AND BREAD.</b>												
Population.....	154,308		150,398		164,456		168,530		174,804		179,678	
Wheat-flour:												
Imported.....cwt.	155,966.43		190,677.32		504,083.77		202,948.73		904,881.06		900,896.04	
Exported.....do.	9,360.50		11,036.67		21,415.56		32,506.39		9,062.90		10,494.71	
Consumed.....do.	146,606.23		179,648.33		186,648.19		180,442.34		193,878.33		190,383.33	
Consumption per capita..pounds.	95.01		119.71		111.06		108.44		112.18		105.96	
Rye-flour:												
Imported.....cwt.	104,533.81		101,135.39		190,905.56		130,022.19		113,081.76		105,792.97	
Exported.....do.	96.68		498.97		6,083.37		11,659.11		187.46		963.52	
Consumed.....do.	104,435.13		100,644.42		114,112.19		118,770.07		112,904.30		104,893.75	
Consumption per capita..pounds.	67.68		63.15		69.39		69.63		64.66		58.34	
Bread:												
Imported.....cwt.	190,066.7		136,898.36		139,123.42		139,831		156,083.15		177,960.33	
Exported.....do.	1,453		1,453		139,123.42		139,831		8,487		177,960.33	
Consumed.....do.	197,614.7		136,898.36		139,123.42		139,831		155,596.15		177,960.33	
Consumption per capita..pounds.	127.68		83.80		84.66		83.48		98.11		98.65	
<b>B.—BEER.</b>												
Population, including military.....	159,884		166,546		173,930		176,570		181,679		186,664	
Produced:												
Simple beer.....hectoliters.	133,698.77		125,183.99	- 6.37	133,674.71	+ 6.78	149,099.90	+ 11.54	152,460.99	+ 2.95	169,477.02	+ 11.16
Lager beer.....do.	105,191.77		119,650.57	+ 7.16	111,520.21	- 1.58	130,753.14	+ 17.55	130,115.12	- 0.49	150,612.20	+ 15.75
City-brewed beer consumed:												
Simple beer.....do.	120,723.73		121,042.94	- 6.70	129,312.77	+ 6.83	144,545.23	+ 11.78	147,705.01	+ 2.19	164,943.59	+ 11.67
Per capita.....liters.	81.14		73.68	- 10.43	75.06	+ 3.23	81.96	+ 9.03	81.30	- 0.68	88.96	+ 8.68
Lager and strong beer, hectoliters.	63,470.99		67,946.93	+ 7.05	73,557.76	+ 6.83	89,654.63	+ 13.87	59,446.50	- 28.07	54,837.24	- 7.76
Per capita.....liters.	39.70		40.80	+ 2.77	42.15	+ 3.31	46.81	+ 11.06	32.72	- 30.10	29.38	- 10.21
Imported beer consumed:												
Simple beer.....hectoliters.	59,505.59		53,448.04	- 1.80	59,436.96	+ 11.90	70,029.39	+ 17.69	68,130.94	+ 17.98	88,457.06	+ 7.70
Per capita.....liters.	32.84		32.09	- 2.26	34.51	+ 7.54	39.66	+ 14.92	45.21	+ 13.90	47.39	+ 4.83
Lager and strong beer, hectoliters.	47,690.75		64,476.66	+ 32.90	73,128.25	+ 13.42	94,964	+ 28.90	123,105.60	+ 32.72	160,204.35	+ 28.14
Per capita.....liters.	29.83		38.71	+ 29.77	42.46	+ 9.69	53.39	+ 25.74	68.86	+ 28.99	85.87	+ 24.70
Exported:												
Simple beer.....hectoliters.	3,965.05		4,141.75	+ 4.41	4,361.94	+ 5.31	4,554.98	+ 4.43	4,728.98	+ 4.35	4,533.43	- 4.61
Lager and strong beer.....do.	41,650.78		44,703.64	+ 0.13	38,642.42	- 13.56	46,068.49	+ 24.47	70,663.53	+ 46.92	95,774.96	+ 35.53

## CELEBRATED INDUSTRIAL ESTABLISHMENTS.

The iron-works and the locomotive-shops of Mr. Borsig, at Berlin, and of the Saxon Machine Company, at Chemnitz, have already been referred to in the preceding pages. Both produce engines, machines, and a variety of other works, which although destitute of the beauty of finish of similar articles made in the United States, yet possess the desirable quality of durability, and have attained a reputation which is no doubt deserved. The tools and appointments of at least one of the establishments are unquestionably inferior to those of first-class shops in Philadelphia, Paterson, Providence, Taunton, and other cities of the United States. No inducement therefore exists for presenting an extended notice of industrial works, which, however deserving of credit, possess in no degree features which can be profitably imitated by similar works in the United States.

But among the metallurgic industries of Germany, there is one which, whether in regard to its history, its extent, the excellence of its workmanship, the liberality of its administration, or its general prosperity, is so far in advance of others—being perfectly unique—that it demands a foremost place among the noteworthy industrial establishments, not only of Germany, but of the world. Reference is made to the

## STEEL-WORKS OF FRIED. KRUPP, IN ESSEN, PRUSSIA.

In pursuance of the author's determination to examine the principal manufacturing establishments of Europe, a visit was made to Essen, in Rhenish Prussia, where the celebrated steel-works of Fried. Krupp are situated. While waiting in the office, a notice, in the English, German, and French languages, was observed on the walls, requesting visitors not to ask for admission into the works, because of the interruption and annoyance it would occasion to the workmen, and not thereby impose upon the proprietor the pain of a refusal.

Although, in obedience to this intimation, a request for the coveted "open sesame" was not made to Mr. Krupp, yet a cordial invitation was extended to the author to call, on his return from Saint Petersburg, and thoroughly examine the works. The following extracts from his note-book, in regard to the capacity and capabilities of this gigantic establishment, are here presented:

*ESSEN, September 20, 1872.*

Left Düsseldorf by first train to visit the celebrated steel-works of Fried. Krupp, having been invited to do so on my previous visit here.

The town of Essen is utterly unattractive in itself, and possesses no interest apart from this remarkable establishment. The population (51,768 in 1871) consists of those engaged in the works, or in supplying those who are so engaged with food and other necessities of life, and are wholly dependent upon the works for their means of subsistence.

I was politely conducted through every part of the works by Mr. Hagemann, who, with great patience and courtesy, pointed out every object of interest and answered my numerous questions.

## MEN EMPLOYED.

The total number of men employed is as follows:

In the works at Essen.....	12,000
In coal-mining, ore-mining, &c.....	5,000
Total.....	17,000

## AMOUNT AND VALUE OF PRODUCTION.

Cast steel produced last year, 125,000 tons.

Whole value of steel, steel guns, shafts, tires, rails, wheels, axles, &c., produced in 1871, 12,000,000 thalers, = in United States gold, \$8,640,000.

Iron and iron-ore used, 200,000,000 pounds.

Coal used per day, 30,000 centner, or nearly 500,000 tons per annum.

Coal now costs 24 thalers per 100 centner, = 5 tons, or nearly 2,400,000 thalers, = \$1,728,000 per annum.

Number of crucibles used per day, 5,000.

Total coal per annum, 250,000 thalers, = \$180,000.

Total cost of labor, 5,000,000 thalers, = \$3,600,000.

## RATES OF WAGES.

Owing to the mode in which the men are paid it is difficult to ascertain the rates of wages, but the earnings average about  $1\frac{1}{2}$  thalers (96 cents) per day.

Men in each branch of work are allowed certain minimum wages, but men of skill and industry are either paid by the piece or receive extra allowances at the end of the year. For instance, the wages of skilled forgers is 60 cents per day, but the most industrious and skillful earn as high as  $2\frac{1}{2}$  thalers (\$1.80) for 11 hours' work. The rate of the next class is 20 groschen, (48 cents,) while they earn  $1\frac{1}{2}$  thalers, (96 cents.) The third class are allowed 18 groschen, but earn 1 thaler per day. Men in the forging and finishing shops receive the highest pay.

Puddlers in iron-rolling mills earn about  $2\frac{1}{2}$  thalers (\$1.80) per day.

Apprentices are allowed 6 groschen per day, the best from 7 to 8, but only one-half is regularly paid to them, the balance remaining until the end of the apprenticeship, when each has a considerable sum to enable him to enter upon the customary "wandering."

Unskilled laborers receive but 4 thalers (\$2.88) per week. My inquiry as to how these lived on so small a sum was referred to the foreman, who shrugged his shoulders, as if to say it was a question in economy beyond his comprehension.

## EXTRA EARNINGS.

The men work, ordinarily, 11 hours per day, but as the works are open and in operation at night and even on Sundays, many men work extra hours, and thus increase their earnings. The mode of payment of the workmen, at least of those most skilled, is substantially by piece-work, or in proportion to their respective industry and skill. In the casting of large shafts, cylinders, guns, &c., the highest skill is required, as, in case of failure, great loss to the proprietor would ensue. When all is ready, men of long experience and great skill are called from their regular work, assist for but twenty minutes, perhaps, and are paid for this extra service at high rates in addition to their regular earnings.

At the end of the year Mr. Krupp distributes a very large amount\* to his workmen in the shape of gratuities, (*gratifications*,) proportioned to the skill and success shown by results. For instance, the men who have been the most regular at work, who have had few or no "blue Mondays," who have done their work well, spoiled no work, made no mistakes, and caused no defective castings, receive the largest gratuities.

\* The sum distributed in the preceding year, 1871, was given in confidence, with a request that it should not be published.

## BENEFACTIONS.

Workmen when sick get half wages, and are cared for in hospital without cost. The men pay toward the expenses of the hospital one groschen out of each thaler earned, the firm contributing one-half as much as the aggregate contributions of the men.

A workman of good skill will receive, in scrip, 100 thalers, payable to his family after his death. In case of sickness or inability to labor he can obtain an advance, not exceeding 50 thalers, on it, which is to be repaid on his return to work.

Mr. Krupp is building houses for 1,800 families, which will be rented to workmen very low, each family occupying two or three rooms. He will continue to build every year. Unmarried men to the number of about 1,000 are lodged and boarded at low rates. They are furnished with abundance of meat and vegetables for dinner, which, with one-half pound of butter and one-quarter pound of coffee per week, and lodging, are furnished at 7 groschen per day, \$1.18 per week. Bread is an extra charge, furnished at cost. I visited the bakery, where nearly 10,000 pounds of rye bread and from 4,000 to 5,000 pounds of wheaten bread are made daily, of excellent quality, as I found by tasting both kinds. Not only the single men who are supplied with food, except bread, but the families of all the workmen obtain their bread here at cost, viz, a loaf of rye bread, weighing 6 pounds, for  $4\frac{1}{2}$  groschen, (10 cents,) and a loaf of white bread, weighing nearly 3 pounds, for  $4\frac{1}{2}$  groschen, being, respectively, about  $2\frac{1}{2}$  and  $3\frac{1}{2}$  cents per pound. The meat and vegetables for the boarders are of good quality and well cooked, everything being clean and nice. Although the dining-rooms and dormitories resemble barracks, they are very clean, and are kept in good order.

There are stores to supply boots and shoes, clothing, dry goods, &c., to workmen at cost; also a manufactory of seltzer water, which is sold to them at the low price of  $\frac{1}{2}$  groschen ( $1\frac{1}{2}$  cents) per bottle.

Mr. Krupp has established schools and reading-rooms, will build a theater, and is doing everything he can for the comfort, the instruction, and the amusement of his employés and their families.

## CRUCIBLES.

All the crucibles for re-smelting the puddled steel, of which 5,000 are used daily, are made on the premises. They cost but 5 groschen (12 cents) each. I did not ask the kind of clay used, but from the appearance and cheapness I think it is the ordinary fire-clay and common plum bago. They are used but once, then broken, remolded, burnt, and again-used. If used several times without breaking, as in England, the clay is unfit for remolding. They consider it cheaper to use the crucibles but once and remold the clay, and recommend the steel-makers in the United States to make their crucibles, which is cheaper than to purchase them.

## QUALITY OF STEEL AND SECRET OF SUCCESS.

With regard to the soundness and good quality of the steel castings made in this establishment, they appear to be entirely faultless. I saw immense guns, nearly completed, intended for exhibition at Vienna next year; an immense shaft for a steamship of one of the German lines to New York, which seemed the very perfection of workmanship, and for which 1 thaler per pound was to be paid; and great numbers of other manufactures of steel, either completed or in progress, all of which ap-

peared to possess great excellence. In regard to tools, machinery, and appointments these works do not, in my opinion, surpass in excellence those of the steel-works of Messrs. Firth & Sons, of Sheffield. But as the products have obtained a higher reputation than those of any other manufacturer, how is this admitted excellence obtained? No doubt it is in part due to the analyses of the various ores from his mines in Germany and Spain, and from Great Britain and other countries, and from experiments made by the experienced and celebrated analytical chemists in his employ. But, in my opinion—the opinion of an expert in metallurgy and mechanical engineering—this firm has no secrets in regard to the admixture of various kinds of iron which, if known, would enable other manufacturers to produce as good steel. The superiority is, I believe, owing to the following causes: Most of his workmen have been a long time in his employ, and have great experience and skill; his foremen thoroughly understand their business, possess technical training, and the highest practical knowledge. These are all attached to the proprietor by his practice of giving extra pay for skilled work, by his annual gratuities, by his generosity exhibited toward the men in every possible way, and his sympathy with them. His workmen are thus warmly attached to him, and strive to promote his interest by performing their several duties thoroughly and well. In the reputation of the establishment for excellence of workmanship they are, therefore, interested.

#### ORIGIN OF THE WORKS.

The works were established in 1810, by Mr. Fried. Krupp, who died when his son, the present proprietor, Mr. Alfred Krupp, was but a little over fourteen years of age. Having had some experience he left school and, in company with one of the skilled workmen, continued the business, on a very small scale at first; but he soon obtained a high reputation for the excellent quality of steel produced, and gradually increased the extent and product of the works. A pamphlet, giving a full and detailed account of the history, present condition, and product of the works, is in course of preparation for the Vienna Exposition, a copy of which will be sent to me.

The small house in which Mr. Alfred Krupp was born is still standing among the large shops, and is kept in good repair. The name of the firm continues, as at first, "Fried. Krupp," and will probably so continue to future generations.

#### CAST-STEEL MANUFACTORY OF FRIED. KRUPP.

The following information in regard to the extent and capacity of these works is condensed from the pamphlet prepared for the Vienna Exposition, which is alluded to in the above notes:

The cast-steel manufactory near Essen was established in the year 1810. It was conducted by Alfred Krupp from the year 1826, and taken by him on his own account in 1848.

The works have been gradually developed, and at this time they cover a continuous area of more than 4,784,000 square yards, of which about 900,000 square yards are covered in, and employ more than 12,000 workmen, independently of about 2,000 who are supplied by building-contractors.

In the mines and smelting-works belonging to the firm, there are employed a further number of about 5,000 workmen. Therefore, the total number would amount to about 17,000 men.

The number of officers and fixed employes is at present 739.

The quantity of cast-steel produced in the year 1872 exceeded 125,000 tons.

The articles manufactured from this cast-steel were, axles, tires, wheels, and crossings



for railways, rails and springs for railways and mines, shafts for steamers, different pieces of machinery, boiler-plates, rolls, spring-steel, tool-steel, guns, gun-carriages, shot, &c.

There are now in operation 250 smelting-furnaces, 390 annealing-furnaces, 161 heating-furnaces, 115 welding and puddling furnaces, 14 cupola and reverberatory furnaces, 160 furnaces of other kinds; 275 coke-ovens, 264 smiths' forges, and 240 steam-boilers, besides 70 more in course of construction.

Seventy-one steam-hammers in all, of which 66 weigh from 2 hundred-weight to 110 hundred-weight each, and one each of 140, 150, 200, 400, and 1,000 each; 236 steam-engines, representing altogether 10,000 horse-power, among which there is one of 1,000, 3 of 800, 5 of 150, and one each of 500, 200, and 120 horse-power.

One thousand and fifty-six machine-tools, viz: Three hundred and sixty-two turning-lathes, 82 shaping-machines, 195 boring-machines, 107 planing-machines, 42 punching and grooving machines, 32 pressing-machines, 63 grinding-machines, 31 glazing and polishing machines, 142 machines of different kinds.

In the year 1872 there were consumed, coals, 500,000 tons; coke, 125,000 tons; water, 113,000,000 cubic feet, supplied from several water-works; gas, 155,000,000 cubic feet, supplied by the gas-works of the establishment, for 16,500 burners.

To facilitate the traffic on the works, there are about 24 miles of railways of usual gauge, with 180 sidings and 39 turn-tables, on which run 12 tank-locomotives of about 16 inches cylinder diameter, and 530 cars, also about 10 miles of small-gauge railways, of 30-inch gauge, with 147 sidings and 65 turn-tables. The traffic on these railways is carried on by means of horses and of 3 locomotives of 6-inch cylinder diameter, and 270 cars.

The carriage department comprises, besides, 272 wagons, and altogether 191 horses, of which 60 wagons and 80 horses are supplied by contractors.

To facilitate the communication between the several workshops, there are thirty telegraph stations.

A permanent fire-brigade, consisting of seventy men, has also been instituted, who perform at the same time police duty. There are one hundred and sixty-six watchmen besides.

The general supply stores, under control of the firm, supply those belonging to the works for ready cash, provisions, clothing, dry goods, boots, &c., at cost prices. The receipts at the different stores amount at present to £11,000 (nearly \$55,000) monthly, and are continually increasing.

There are also three beer-houses, one hotel, one seltzer-water manufactory, one flour-mill, and one bakery, with two steam-engines, producing at an average eighty-five tons of bread monthly.

Of the dwellings for the officers and workmen, there are for the former two hundred and six; for the latter, two thousand nine hundred and forty-eight, either inhabited or in course of construction. There are living now in these houses more than eight thousand individuals, and the number is being rapidly increased. The existing boarding-houses offer board and lodging to two thousand five hundred unmarried workmen, and other houses of the same description are now being built for the accommodation of one thousand six hundred more.

The arrangements for the accommodation of the sick consist of one hospital containing one hundred beds, and one epidemic hospital with one hundred and twenty beds, all under the supervision of physicians especially engaged for the purpose.

A sick, burial, and pension fund has also been instituted for the workmen. The firm contributes to this fund half the amount of the contributions paid in by the members, being, in addition, at the expense of providing pensions and support for those who have been rendered unfit for work in their service, and for the widows of their workmen. The total receipts in the year 1872 amounted to £16,000, the expenditure to £12,500, and the capital in hand at the beginning of the present year (1873) to £19,348.

From another fund members receive for their families free medical treatment against an annual payment of seventy-two cents.

Finally, the firm has organized a chemical laboratory, a photographic and lithographic atelier, as well as printing and book-binding establishment. In the printing-office there are two steam and four hand presses in operation.

Besides the cast-steel works near Essen, the firm possesses considerable mining and smelting works, which secure to it a regular and uniform supply of the best raw material. These comprise coal-pits in Prussia, iron-ore mines to the number of four hundred and fourteen, with an area of more than 239,200,000 square yards.

The firm possesses important concessions of excellent iron-ore beds in North Spain, whence it is intended to import annually up to 300,000 tons of ore for the production of cast-steel. To facilitate the importation, a railway in Spain nearly eight miles long, as well as several steamers, are already in course of construction.

The Sayner and Oberhammer smelting-works contain two blast-furnaces, which produce daily about twenty tons of "spiegeleisen" and "charcoal spiegeleisen;" the

Mülhofer smelting-works on the Rhine, containing four blast-furnaces, each of which produces daily about forty-five tons of spiegel, Bessemer, and fine iron; and the Herrmans' smelting-works on the Rhine, near Neuwied, with three blast-furnaces.

Also, the Bendorf smelting-works; the Johannes smelting-works near Duisburg, on the Rhine, producing daily in four blast-furnaces from about one hundred and forty to one hundred and sixty tons. The construction of six more furnaces has been commenced, and the works are in connection with the Rhenish and the Bergisch-Märkisch Railway.

These works have also one hundred and forty coke-ovens in operation, and one hundred and twenty more in course of construction.

Krupp's smelting-works produce, accordingly, at the present time, with eleven blast-furnaces, nearly ten thousand tons of pig-iron per month.

#### DESCRIPTION OF SOME ARTICLES MADE FOR THE EXHIBITION.

One crucible cast-steel block, (1,800 crucibles, each containing about sixty pounds,) 54 inches octagonal, weighing fifty-two and one-half tons.

This casting, originally cylindrical, has been reduced to the octagonal form by forging under a fifty-ton hammer, to illustrate the malleability of the material. Cuts were made in four different places, while in a red-hot state, to show, when broken off later, the density and soundness of the cast steel. This block of gun-metal quality is intended for the body of a gun of 14-inch caliber, and receives the required form by further forging.

One locomotive straight axle, of crucible cast steel, in the forged state.

One forged tender-axle, of crucible cast steel. The body of this axle is forged complete under the hammer, and requires no further workmanship.

Six carriage-axes, of crucible cast steel, forged according to the dimensions approved by the German railways.

Two unwelded rings of crucible cast steel, forged from solid blocks by making a cut in the middle and driving them out under a hammer.

One locomotive-eccentric crank and one driving-wheel crank, both of crucible cast steel, in the finished state. These pieces of machinery are supplied by the works in the rough, turned, or finished state.

Two carriage-axes, of crucible cast steel, body forged, ready fitted with tires of same material, and spoke-wheels, nave included, of wrought iron.

Two carriage-axes, of crucible cast steel, ready fitted with disk-wheels cast in molds, of same material.

A collection of cast-steel springs for locomotives, tenders, and carriages.

Bessemer steel rails, the manufacture being illustrated by a Bessemer casting, from which octagonal blocks are forged as shown by the exhibited sample.

Rolls and rolling-machines illustrating the most usual forms and dimensions used in this branch of manufacture, one of the oldest of the establishment.

*Artillery material.*—The guns are manufactured from crucible cast steel of a quality especially adapted for the purpose, and are, those of the smallest calibers excepted, constructed according to the built-up system. All guns have Krupp's round wedge.

The naval and coast gun-carriages are generally manufactured from wrought iron; only particular parts, such as the axles, axle-trees, cylinders, and piston-rods of the hydraulic buffer and the slide rollers of the coast-gun carriages being made of cast steel. Cast iron is only used for small truck-wheels.

Heavy guns on carriages for coast defenses, ship-guns on battery-carriages with hydraulic buffers and self-acting running-out apparatus; lighter guns on ship and upper-deck carriages, and on slide and on wheel carriages, for siege purposes, as also field-pieces and one light mountain-gun on carriage, were among the articles exhibited at Vienna.

#### CONDITION OF THE WORKING-CLASSES.

From information obtained from Germany, in relation to the working-classes, since the foregoing went to press, the following is presented:

The condition of the working-classes in Bavaria during the year 1873 is described as prosperous, even in comparison with the previous year. The former high wages were generally maintained, though, it is added, few of the recipients appear to have taken advantage of the improvement in their material condition to lay by anything for future contingencies. With the exception of the journeymen-printers' strike, no organized strike occurred in any trade during the year, but the relations between employers and workmen are described in the report of the Stuttgardt chamber of commerce as anything but satisfactory.

The following is extracted from that report:

The sound sense of the working-classes is becoming more and more obscured by the systematic efforts made to mislead them into hostility toward capital, under the pretext of oppression and great injustice. Worked upon for party purposes, a feeling of distrust has gradually sprung up and developed to an extent which gives just ground for fearing that not only production will suffer from the growing complications, but that social order in general may be placed in peril.

#### FARM-LABOR.

From the report of a commission appointed by the German agriculturists to inquire into the condition of the rural laborers in the German Empire, it appears that the wages paid are higher in districts having large landed proprietors, and also when the productiveness and consequent rentability of the soil is greater:

The proportion of wages for contract work to the per diem paid shows that the former exceed the daily summer wages by 49 per cent., the average contract-wages showing 59 cents, the average daily wages being 40 cents in summer and 35 cents in winter.

Generally, one-third of the rural laborers in Southern and Western and one-fourth in Eastern and Northern Germany work under contract.

The average yearly earnings of agricultural laborers approximate the following sums:

1. Free laborers owning land.....	\$173 09
2. Laborers hired under contract.....	165 60
3. Free laborers not owning land.....	146 16

The number of their working-days averages 300 in the year. It is remarked that in exclusively Catholic districts the number of work-days is smaller than in districts inhabited principally by protestants.

The wages paid show an increase of from 50 to 100 per cent. during the last twenty to twenty-five years.

The wives of rural laborers generally contribute to the support of the family, either by working for wages or by tilling their own family-farm, or by both.

Children generally work at agricultural labor where other industrial interests do not predominate, otherwise they seek employment in factories.

Our information shows that nearly everywhere the earnings of the father are insufficient alone to meet the necessities of a family.

Agricultural employers generally claim for their laborers a higher moral standard than that accorded to other laborers, while many acknowledge their average intellectual inferiority. The data received will not warrant a comparison of their relative material condition. As to the general condition of the rural laborers, compared with that of ten or twenty years ago, the reports received, although somewhat contradictory, indicate a general improvement in morality. The decrease of crimes against property is universally acknowledged; while sobriety has improved in Northern but decreased in Southern Germany.

While a general improvement in their material condition is freely acknowledged, it is remarked that, as a class, the laborers have not become more provident.

While the prices of rye and beef, during the past twenty to thirty years, have advanced 25 and 53 per cent., respectively, wages, during the same period, have increased from 50 to 100 per cent.

Emigration to foreign countries is greater in Northern Germany, and less from Central and Southern Germany.

The inducements to emigration are stated generally to be "to improve their condition;" "to acquire a homestead;" "induced by agents or relatives in America;" "to evade military service."

In Prussia the current of emigration seems to have run from west to east, as indicated by the fact that, of each one thousand inhabitants, there emigrated from—

	1844-'59.	1860-'67.	1868-'71.
Rhenish Prussia .....	1.6	1.2	1.0
Westphalia .....	1.7	1.7	1.4
Pomerania .....	1.1	3.1	5.1
Posen .....	0.3	1.6	2.0
Prussia, provinces of .....	0.2	0.4	1.4

But, while 64,505 persons emigrated from the Kingdom of Prussia in 1872, only 47,809 followed in 1873. Although without exact tables, the information for 1874 indicates a continued decrease in the number of emigrants. It may therefore be assumed that emigration from Northern (especially Northeastern) Germany has passed its climax, and will continue to decrease in the same ratio as previously in Southern and Western Germany.

The migration of laborers, especially of single men and women, (the latter most numerous,) from the country to towns and cities is noticeable.

## LABOR IN AUSTRIA.

Manufacturing industry is of comparatively modern growth in Austria, which has not long ceased to be a purely agricultural country. The industrial population is not, therefore, to any considerable extent engaged in manufactures which come into competition with the productions of the United States. By reference to the following table, it will be noticed that glass-ware, manufactures of leather, including gloves, buttons, and fancy goods, constitute the principal articles of Austrian manufacture which find a market in the United States. Silk goods, musical instruments, china-ware, jewelry, and some other articles of luxury serve to swell the amount of our imports; but, it will be observed, the articles of chief value which we receive from that country are fruits and wool:

*Statement showing the value of exports, direct and indirect, from Austria to the United States during the fiscal year ended June 30, 1874.*

Direct trade.		Indirect trade.	
Articles.	Value.	Articles.	Value.
Chemicals .....	\$8, 231	Buttons .....	\$400, 970
Cordage .....	1, 659	Chemicals, &c. ....	27, 156
Fancy goods .....	13, 048	Cotton, and manufactures of.....	23, 886
Fruits of all kinds.....	296, 477	China-ware, &c. ....	49, 340
Glass .....	690	Fancy goods .....	163, 863
Old and scrap iron.....	26, 912	Flax, manufactures of.....	6, 869
Jute, raw .....	1, 164	Fruits .....	416, 281
Gloves of kid, &c.....	1, 475	Furs .....	25, 961
Metals, &c. ....	490	Glass and glass-ware.....	442, 213
Musical instruments.....	1, 204	Iron and steel, and manufactures of...	10, 119
Paints .....	2, 548	Jewelry .....	39, 058
Sulphur .....	985	Leather, and manufactures of.....	219, 191
Wine, spirits, and cordials.....	390	Musical instruments.....	53, 221
Wool .....	9, 754	Silk, and manufactures of.....	77, 633
Unenumerated .....	8, 714	Wine, spirits, and cordials .....	15, 381
Free of duty.....	113, 962	Wool, &c. ....	500, 607
		Unenumerated.....	134, 135
		Free of duty .....	99, 809
Total .....	488, 042		2, 830, 940

## IMMIGRATION INTO THE UNITED STATES FROM AUSTRIA.

The large Teutonic element of our population has already been referred to, but it is worthy of remark, the immigration from the Austro-Hungarian Empire was not extensive. The last census exhibited the fact that there were in the United States on the 1st of June, 1870, only 30,508 natives of Austria proper, 40,289 of Bohemia, and 3,737 of Hungary. And although during the last semi-decade there has been an increase in the number of immigrants from that country, yet the aggregate is by no means large, as will be seen by reference to the following statement:

*Number of immigrants who arrived in the United States from Austria during the five calendar years from 1870 to 1874, inclusive.*

1870 .....	5, 283
1871 .....	4, 770
1872 .....	5, 100
1873 .....	6, 943
1874 .....	6, 891
Total .....	28, 987

Vienna is one of the ancient and famous capitals of Europe, but, until the late exposition, was less known to Americans than almost any other. Its population in 1872 was 980,000. It is the most important manufacturing city in the empire. The principal products consist of silk and other stuffs, gold-lace, silver-lace, ribbons, hardware, and ornamental goods, philosophical instruments, carriages, and paper. There are several porcelain works, one of which employs 150 painters and about 1,500 work-people. There are also manufactured steel ornaments, jewels, watches, musical instruments, and chemical preparations. There are locomotive and engineering works, a gun-factory, and a manufactory of small arms, belonging to the government. Tobacco is manufactured under a government monopoly. The manufacture of silk-stuffs is an important branch of industry, and 4,000 persons are employed in the weaving of shawls; but the most flourishing trade is the manufacture of meerschaum-pipes, in which much skill and artistic taste are displayed. Glove-making is also carried on to much perfection, and the trades and manufactures common in large capitals are prosecuted here.

Notwithstanding its disadvantages of climate and situation, few places possess such ample resources, such large means of enjoyment, both intellectual and physical, as the imperial city. The streets are crowded with a lively, active, bustling population. The Exposition of the industry of all nations, held in 1873, which transcended in magnitude every effort of a similar character previously attempted in any country, has doubtless been productive of vast benefit to that city, as well as to the whole empire, by reason of the disbursement there of the immense sums of money that were necessarily expended in carrying out the objects of the enterprise, and also on account of the improvements in arts and sciences that have been introduced, and the quickening that has been given to all the industrial processes of civilization. The permanent benefits accruing to trade and commerce, and the prestige that has resulted from the concourse of the representatives of all nations, are, it is believed, sufficient returns for the cost and labor bestowed upon the undertaking.

#### THE KID-GLOVE MANUFACTURE.

The Vienna manufacturers were fully represented at the Exhibition by a collection remarkable for elegance. Several kinds of gloves were found in this selection as they are exported to all parts of the world. By means of important improvements introduced in glove-cutting, regulating, and sewing by machinery, the Austrian article has acquired a good repute, and consequently extensive markets. The principal seats of this manufacture in Austria are Vienna and Prague. For several years past the demand in England and America has been very considerable, and the export to those countries, as well as to Switzerland, Holland, the Danubian Principalities, Russia, and the East has steadily increased, as will be seen from the following figures. The value of gloves exported from Austria amounted in 1863 to \$3,300,000; 1864, to \$4,590,000; 1865, to \$6,840,000; 1866, to \$9,420,000; 1867, to \$12,195,000; 1868, to \$14,070,000; 1869, to \$15,795,000; 1870, to \$16,545,000; 1871, to \$21,090,000; and 1872, to \$22,545,000.

## WAGES IN WOOLEN-MILLS.

The following table, exhibiting the wages paid to the work-people employed in the manufacture of woollen goods in several parts of Austria, has been translated from the original statements, which were obtained and transmitted to the author of this report in 1872 :

*Statement showing the rate of wages paid to work-people employed in woollen-factories in the undermentioned places in the year 1872.*

Occupation.	Yaegendorf.		Brünn.	
	Hours.	Weekly wages.	Hours.	Weekly wages.
Workmen in warehouse.....	6 a.m. to 7 p.m..	\$3 18	6 a.m. to 7 p.m..	\$1 97 to \$2 03
Wool-sorters.....	.....	.....	do.....	1 45 to 1 51
Dyers.....	6 a.m. to 7 p.m..	2 04	6 a.m. to 6 p.m..	2 18 to 2 06
Wolfers.....	5 a.m. to 8 p.m..	1 94	Accord'g to need.	2 91 to 3 15
Plushers.....	.....	.....	do.....	2 91
Combers, (girls).....	5 a.m. to 8 p.m..	1 21	6 a.m. to 6 p.m..	1 40 to 1 59
Spinners, (girls).....	.....	\$3 91 to 4 85	Accord'g to need.	(a)
Spinners, (boys).....	5 a.m. to 8 p.m..	1 16	do.....	(a)
Dressers.....	do.....	2 18	6 a.m. to 6 p.m..	2 91 to 3 40
Master dressers.....	.....	.....	6 a.m. to 8 p.m..	9 70 to 16 97
Master spinners.....	.....	5 82 to 8 73	do.....	7 27 to 9 70
Yarn-reelers, (girls).....	.....	.....	Accord'g to need.	(b)
Twisters.....	5 a.m. to 8 p.m..	1 21 to 1 70	do.....	(c)
Yarn-spoolers, (girls).....	6 a.m. to 7 p.m..	1 21 to 1 70	do.....	(d)
Warp-shearers.....	do.....	1 45	do.....	3 88 to 4 37
Sizers.....	.....	.....	do.....	2 91 to 3 40
Hand-weavers.....	10 hours at most.	2 42 to 3 88	do.....	4 37 to 5 82
Spoolers.....	.....	97 to 1 21	do.....	(e)
Coarse burlers.....	6 a.m. to 7 p.m..	1 16	6 a.m. to 7 p.m..	1 31 to 1 45
Needlewomen.....	do.....	1 16	do.....	1 89 to 2 03
Fine burlers.....	do.....	1 16	do.....	1 45 to 1 69
Washers.....	.....	.....	do.....	1 97 to 2 33
Fallers' hands.....	5 a.m. to 7 p.m..	1 94	do.....	1 97 to 2 33
Master fullers.....	do.....	3 88	.....	5 82
Nappers.....	do.....	2 18	6 a.m. to 7 p.m..	1 60 to 1 75
Master nappers.....	.....	.....	.....	7 27 to 12 12
Card-cleaners.....	5 a.m. to 7 p.m..	1 21	6 a.m. to 7 p.m..	1 89 to 2 03
Dryers.....	.....	.....	do.....	1 89
Shearers.....	6 a.m. to 7 p.m..	1 21 to 1 45	do.....	1 60 to 1 89
Shearers, (boys).....	.....	.....	do.....	99 to 1 16
Brushers.....	.....	.....	do.....	1 75 to 1 89
Master shearers.....	.....	4 85 to 7 27	.....	4 85 to 7 27
Prizzers.....	.....	.....	6 a.m. to 7 p.m..	1 75 to 1 89
Pressmen.....	.....	.....	do.....	2 91
Master pressmen.....	.....	.....	.....	4 85 to 5 82
Stokers.....	5 a.m. to 8 p.m..	3 40 to 4 37	.....	2 91 to 3 40
Engine-tenders.....	.....	.....	.....	2 91 to 3 40
Factory blacksmiths.....	6 a.m. to 7 p.m..	2 18 to 2 91	.....	4 85 to 5 82
Factory carpenters.....	do.....	2 18 to 2 91	.....	3 40 to 4 85

\*Wolfers in the original; the English equivalent unknown.

Occupation.	Troppau.		Bielitz.	
	Hours.	Weekly wages.	Hours.	Weekly wages.
Workmen in warehouse.....			5 a. m. to 7 p. m..	\$3 42
Wool-sorters.....	6 a. m. to 7 p. m..	\$1 02	do	1 12
Dyers.....	do	1 75	6 a. m. to 6 p. m..	1 28
* Wolfers.....	6 a. m. to 6 p. m..	1 31	5 a. m. to 7 p. m..	2 18
Plushers.....	do	1 31	do	1 13
Combers, (girls).....	do	1 11	do	
Spinners, (girls).....	Variable.....	\$3 39 to 3 88	do	\$3 91 to 3 88
Spinners, (boys).....	6 a. m. to 6 p. m..	88	do	1 02
Dressers.....		1 94 to 2 42	do	2 18
Master-dressers.....		7 76	do	
Master-spinners.....			do	6 79
Yarn-reelers, (girls).....	Variable.....	1 45 to 1 94	do	1 21
Twisters.....	6 a. m. to 6 p. m..	1 31	do	
Yarn-spoolers, (girls).....	do	(e)	do	1 16
Warp-shearers.....		1 45 to 1 94	do	2 22
Sizers.....		2 18	do	1 45
Hand-weavers.....	6 a. m. to 7 p. m..	2 91 to 3 39	do	
Spoolers.....	Variable.....	(e)	do	1 16
Coarse burlers.....	6 a. m. to 7 p. m..	1 45	do	1 16
Needlewomen.....	do	1 69	do	1 45
Fine burlers.....	do	1 69	do	1 16
Washers.....	6 a. m. to 6 p. m..	2 18	do	1 09
Fullers' hands.....	do	2 18	do	1 94
Master-fullers.....	do	3 39 to 3 88	do	5 28
Nappers.....	6 a. m. to 7 p. m..	1 45	do	1 45
Master-nappers.....			do	
Card-cleaners.....	6 a. m. to 7 p. m..	1 16	do	97
Dryers.....	do	1 45	do	
Shearers.....	do	1 16	do	1 45
Shearers, (boys).....			do	1 16
Brushers.....			do	1 45
Master-shearers.....			do	7 76
Frizzers.....			do	
Pressmen.....			do	2 12
Master-pressmen.....			do	3 24
Stokers.....		2 62	do	2 68
Engine-tenders.....	6 a. m. to 6 p. m..	2 62	do	3 15
Factory blacksmiths.....	Variable.....	5 82	do	4 85
Factory carpenters.....	6 a. m. to 6 p. m..	3 20	do	3 68

\* Some of these occupations have not been translated, others probably not correctly rendered, owing to a want of technical knowledge on the part of the translator.

a Per 100 "straehne" warp and wool, according to fineness, 24 to 38 cents; strong yarn, 49 to 57 cents. A strahne is 1,760 Vienna ella, or 1,508 English yards.

b Per 100 strahne 2.7 to 14.5 cents, according to the fineness of the yarn.

c Per 100 strahne 48 cents.

d Per 100 strahne 10.7 cents.

e Per 100 strahne 30 cents.

### PRAGUE, BOHEMIA.

This ancient city, the capital of Bohemia, possesses many industrial establishments of considerable importance; and it is to be regretted that a statement of the rates of wages in each branch of manufacture was not obtained.

### MARKET-PRICES IN PRAGUE.

Statement showing the average market-prices of grain and other commodities in the city of Prague, during the year 1873.

Articles.	Value in United States gold.	Articles.	Value in United States gold.
Wheat.....per bushel..	\$2 06	Hay.....per cwt..	\$1 39
Rye.....do.....	1 43	Straw.....do.....	86
Barley.....do.....	1 18	Beef.....per pound..	144
Oats.....do.....	65	Wine.....per gallon..	\$1 03 to 1 45
Pease.....do.....	1 47	Beer.....do.....	15 to 20
Beans.....do.....	2 27	Wood.....per cord..	6 24 to 9 00
Millet.....do.....	2 58	Wool.....per cwt..	55 89 to 66 24
Buckwheat.....do.....	1 37	Laborers' wages, without board.....per day..	37 to 69
Indian corn.....do.....	1 53		
Potatoes.....do.....	46		

## PRICES OF HOUSE-RENT IN PRAGUE.

	Percentage of the whole.		Percentage of the whole.
Up to \$46.20 .....	36.9	From \$231 to \$463 .....	7.4
From \$46.20 to \$92.40 .....	27.2	From \$463 to \$924 .....	3.4
From \$92.40 to \$138.60 .....	13.7	From \$924 .....	1.1
From \$138.60 to \$184.80 .....	6.2		
From \$184.80 to \$231 .....	4.1	Total .....	100.0

Average wages of a laborer in 1873, from 39 to 72 cents.

The following statement, translated from a report of the Chamber of Commerce of Lintz, on trade of Upper Austria, shows the rates of wages then paid to work-people employed in the various factories and industrial establishments in that year:

*Daily wages in Upper Austria in 1870.*

[The Austrian florin, subdivided into 100 kreutzer, is about equal to 48 cents, United States gold.]

Occupied in—	In Austrian currency.	In United States gold.
Cotton-spinneries .....	40 kreutzer to 2 florins ..	19.2 to 96 cents.
Cotton-factories .....	40 kreutzer to 1½ florins ..	19.2 to 72 cents.
Wool-spinneries .....	30 kreutzer to 1.2 florins ..	14.4 to 58 cents.
Woolen-factories .....	35 kreutzer to 1 florin ..	16.3 to 48 cents.
Flax-yarn spinneries { Adult males .....	60 kreutzer to 1 florin ..	28.8 to 48 cents.
{ Adult females .....	35 to 60 kreutzer ..	16.3 to 28.8 cents.
{ Children .....	25 to 35 kreutzer ..	12 to 16.3 cents.
Linen-factories .....	45 to 50 kreutzer ..	21.6 to 24 cents.
Glass-factories .....	30 kreutzer to 3 florins ..	14.4 cents to \$1.44.
Paper-factories .....	40 kreutzer to 1½ florins ..	19.2 to 72 cents.
Printing and lithography ..	65 to 80 kreutzer ..	31.2 to 38.4 cents.
Chemical and dye-stuff factories ..	35 kreutzer to 1 florin ..	16.3 to 48 cents.
Flour-mills .....	40 kreutzer to 1½ florins ..	19.2 to 72 cents.
Ship-wharf in Lintz .....	80 kreutzer to 2 florins ..	38.8 to 96 cents.
Shoe-blackening factories ..	50 to 90 kreutzer ..	24 to 43.2 cents.
Porcelain-factories .....	70 kreutzer to 1 florin ..	33.6 to 48 cents.
Gilded-frame factories .....	25 kreutzer to 1 florin ..	12 to 48 cents.
Tanneries .....	85 kreutzer to 1 florin ..	40.8 to 48 cents.
Sirup-factories .....	*6 to 9 florins .....	*\$2.88 to \$4.32.

\* Monthly wages, including board and lodging.

*Average annual wages in Upper Austria in 1870.*

Occupations.	In Austrian currency.	In United States gold.	Occupations.	In Austrian currency.	In United States gold.
	Florins.			Florins.	
Awl-makers .....	100	\$48 00	Cast-steel-file cutters .....	200	\$96 00
Armor-makers .....	117½	56 31	Hammersmiths .....	100	48 00
Tinsmiths .....	221	106 08	Chain-forgers .....	104	49 92
Anger-makers .....	100	48 00	Sword-smiths .....	111	52 90
Gunsmiths .....	118	56 64	Copper-hammerers .....	130	62 40
Steel-tack makers .....	130	62 40	Coppersmiths .....	100	48 00
Wire-drawers .....	235½	113 00	Machinists .....	300	144 00
Workers in iron cooking-utensils ..	140	67 20	Machine nail-makers .....	120	57 60
Workers in iron and steel articles ..	200	96 00	Knife-makers .....	102½	49 12
Braziers .....	200	96 00	Needle-makers .....	104	49 92
Tile-cutters .....	100	48 00	Locksmiths .....	100½	48 33
Brass-founders .....	104	49 92	Blacksmiths .....	90	39 80
Bell-founders .....	287½	139 94	Scythe-makers .....	153½	73 68

The first part of the foregoing statement shows that the daily wages paid for factory labor were sufficiently moderate, but the yearly wages of mechanics and other skilled workmen exhibit such low figures, even



for the year 1870, before the general rise in the price of labor, that some explanation is required. Either the sums named must have been paid in addition to board, or the men worked but a portion of the year.

From the following table, furnished to the author by the United States vice-consul at Trieste, it will be observed that the rates of wages in that sea-port, in 1873, were in excess of those in most other continental cities:

*Rate of wages paid for mechanical labor in Trieste, Austria, in the year 1873.*

Occupation.	Daily wages.	Occupation.	Daily wages.
Blacksmiths .....	\$1 20	Plasterers .....	\$1 00
Brick-layers or masons .....	1 00	Shoemakers .....	1 00
Cabinet-makers .....	*1 00	Stone-cutters .....	1 00
Carpenters .....	1 20	Tailors .....	*1 50
Coopers .....	1 00	Tanners .....	1 20
Machinists .....	*3 00	Tinsmiths .....	1 20
Painters .....	1 50	Wheelwrights .....	1 00

\* And upward.

Although the above wages appear high, as compared with the rates paid in other European cities, yet the purchasing-power of the earnings of work-people is by no means great, as will appear from the prices of provisions and other necessary articles in Trieste, given in the following table:

#### PRICES OF PROVISIONS, GROCERIES, ETC.

*Prices of provisions, groceries, and other leading articles of consumption, and also of house-rent, in the town of Trieste.*

[Furnished by Mr. Visich, United States vice-consul.]

Articles.	Retail-prices in 1872.	Articles.	Retail-prices in 1872.
<b>PROVISIONS.</b>		<b>GROCERIES, ETC.—Cont'd.</b>	
Flour:		Coffee, Rio:	
Wheat, superfine .....	\$11.80 per barrel.	Green .....	30 to 40 cents per pound.
Wheat, extra family .....	\$12.80 per barrel.	Roasted .....	40 cents per pound.
Rye .....	\$6 per barrel.	Sugar, good brown .....	12 cents per pound.
Corn-meal .....	\$3.40 per barrel.	Sirup .....	50 to 60 cents per gallon.
Beef, fresh:		Soap, common .....	9 cents per pound.
Roasting-pieces .....	28 cents per pound.	Starch .....	10 cents per pound.
Soup-pieces .....	22 cents per pound.	Fuel:	
Rump-steaks .....	24 to 25 cents per pound.	Coal .....	\$12 to \$15 per ton.
Veal:		Wood, hard .....	\$3 to \$4.50 per cord.
Fore-quarters .....	28 cents per pound.	Wood, pine .....	\$2 to \$3 per cord.
Hind-quarters .....	34 cents per pound.		
Cutlets .....	34 cents per pound.	<b>DOMESTIC DRY-GOODS, ETC.</b>	
Mutton:		Shirtings:	
Fore-quarters .....	12 cents per pound.	Brown, 4-4, standard quality .....	10 to 15 cents per yard.
Leg .....	14 cents per pound.	Bleached, 4-4, standard quality .....	12 to 16 cents per yard.
Chops .....	14 cents per pound.	Sheetings:	
Pork:		Brown, 9-8, standard quality .....	10 to 12 cents per yard.
Fresh .....	30 cents per pound.	Bleached, 9-8, standard quality .....	11 to 13 cents per yard.
Bacon .....	22 cents per pound.	Tickings, good quality .....	30 to 40 cents per yard.
Hams, smoked .....	50 cents per pound.	Mousseline de laine .....	30 to 40 cents per yard.
Shoulders .....	40 cents per pound.	Satinets, medium quality .....	60 to 90 cents per yard.
Sausages .....	30 to 50 cents per pound.	Boots, men's heavy .....	\$4 to \$6 per pair.
Lard .....	34 cents per pound.		
Butter .....	30 to 46 cents per pound.	<b>HOUSE-RENT.</b>	
Cheese .....	35 to 50 cents per pound.	Four-roomed tenements .....	\$1 to \$1.50 per month.
Potatoes .....	\$1 per bushel.	Six-roomed tenements .....	\$1.80 to \$2 per month.
Rice .....	6 to 9 cents per pound.		
Beans .....	5 to 7 cents per quart.		
Milk .....	6 to 10 cents per quart.		
Eggs .....	12 to 15 cents per dozen.		
<b>GROCERIES, ETC.</b>			
Tea, Oolong, or other good black .....	80 cents per pound.		

In the following statement, translated from an official publication of Austria, published at Vienna in 1872, the measures and values are expressed in the respective standards of the United States: gle

Statement showing the price of provisions and fuel, and the daily wages of ordinary labor, in various parts of the Austro-Hungarian monarchy, in the month of March, 1872.

Governmental districts and cities.	Beef.	Veal.	Pork.	Mutton.
	<i>Cents per lb.</i>	<i>Cents per lb.</i>	<i>Cents per lb.</i>	<i>Cents per lb.</i>
<b>Galicia:</b>				
Lemberg .....	14.8	11.8 to 16.6	15.4 to 17.7	
Tarnopol .....	9.5	11.8	14.2	
<b>Military Border:</b>				
Oloca .....	11.3	11.8	13.01	8.3
New Gradisca .....	10.6	11.3	13.01	8.3
Weiskirchen .....	14.2	15.4	17.8	
<b>Moravia:</b>				
Brünn .....	16.6 to 21.3	16.6 to 20.1	18.9 to 20.1	14.2 to 17.8
Kremsier .....	16.6 to 17.8	14.2 to 15.4	16.6 to 17.8	13 to 14.2
Neutitschin .....	17.8	15.4	18.96	
Nikolsburg .....	17.8	17.8	18.96	
Olmütz .....	17.8 to 19.5	15.4 to 16.6	18.96	15.4
Teltsch .....	16.6 to 17.8	11.9 to 14.2	17.8 to 20.1	13 to 14.2
<b>Silesia:</b>				
Zauernig .....	13 to 14.2	9.5 to 10.7	18.96	11.9 to 13
<b>Bohemia:</b>				
Tabor .....	16.6 to 17.8	15.4 to 16.6	16.6 to 18.96	
<b>Lower Austria:</b>				
Treismauer .....	17.8	17.8	17.8	
Vienna .....	19.5	20.7	25.5	20.7
Vienna-Neustadt .....	18.9 to 20.1	22.5 to 41.5	20.1 to 21.3	14.2 to 15.4
<b>Steiermark:</b>				
Gras .....	17.2	27.5	23.7	13 to 15.4
<b>Kaernten:</b>				
Feldkirchen .....	14.2 to 14.8	15.4 to 16	17.8 to 18.96	10.7 to 11.8
Kappel .....	15.4		20.7	
Klagenfurt .....	14.2 to 16.6	16.6 to 17.8	20.1	11.8 to 13
Villach .....	14.2 to 15.4	15.4 to 16.6	17.8 to 18.96	
Völkermarkt .....	14.8 to 16	15.4 to 16.6		
<b>Krain:</b>				
Lalbach .....	9.5 to 10.6	15.4 to 17.2	14.8 to 16	10.7 to 11.8
<b>Upper Austria:</b>				
Urfahr .....	16.6 to 20.1	15.4 to 17.8	17.8 to 20.1	
<b>Tyrol:</b>				
Bozen .....	14.8 to 17.2	14.8 to 16	18.96 to 20.1	11.8 to 13
Meran .....	14.2 to 17.8	14.2 to 17.8		

Governmental districts and cities.	Lard.	Bread.	Wood.	
			Hard.	Soft.
	<i>Cents per lb.</i>	<i>Cents per lb.</i>	<i>Per cord.</i>	<i>Per cord.</i>
<b>Galicia:</b>				
Lemberg .....		2.7 to 10.8	\$6 12 to \$7 90	\$5 10 to \$6 37
Tarnopol .....		2.2 to 10.8	6 37	5 10
<b>Military Border:</b>				
Oloca .....	35.5	9.5 to 10.7	3 06	2 04
New Gradisca .....	29.6	3.6 to 5.9	3 06 to 4 08	2 04
Weiskirchen .....	26.7		8 16 to 9 17	4 08 to 6 12
<b>Moravia:</b>				
Brünn .....	23.4	4.1 to 5.3	7 90 to 8 46	6 12 to 6 37
Kremsier .....	30.8 to 33.2	3.6 to 10.7	7 65 to 8 66	4 58 to 5 61
Neutitschin .....	27.5	5.3 to 13.6	6 12	4 33
Nikolsburg .....	27.5	4.7 to 8.3	7 15	5 06
Olmütz .....	29.6	5.9 to 10.7	7 39 to 7 65	4 59 to 4 84
Teltsch .....	27.5	3 to 8.3	5 60	3 61
<b>Silesia:</b>				
Zauernig .....	30.8	3 to 10.7	5 09	4 08 to 4 18
<b>Bohemia:</b>				
Tabor .....	22.8 to 24	5.3 to 20.1		3 31 to 3 57
<b>Lower Austria:</b>				
Treismauer .....	27.5	4.4 to 10.7	7 65	5 10
Vienna .....	24.3		12 10 to 12 23	8 66
Vienna-Neustadt .....	23.7 to 26	7.8 to 8.9	8 66	5 61
<b>Steiermark:</b>				
Gras .....	23.7	4.1 to 7.7	7 15 to 8 16	5 61 to 6 63
<b>Kaernten:</b>				
Feldkirchen .....	27.5	3.6 to 8.3	4 08 to 5 09	2 55 to 3 06
Kappel .....	26.7 to 29.6	5.9 to 13	2 80 to 3 06	2 14 to 2 29
Klagenfurt .....	26	3.6 to 9.5	2 29 to 2 50	1 84 to 1 99
Villach .....	27.5 to 29.6	4.1 to 9.5	4 43	2 80
Völkermarkt .....	27.5	4.1 to 11.8	3 06 to 4 08	2 29 to 3 06
<b>Krain:</b>				
Lalbach .....	26 to 27.5	4.1 to 5.9	3 26 to 3 36	2 45 to 2 55
<b>Upper Austria:</b>				
Urfahr .....	27.5	4.1 to 8.2	8 66 to 9 17	6 37
<b>Tyrol:</b>				
Bozen .....	24.9 to 26	4.1 to 7.1	8 92	6 63
Meran .....	29.6 to 33.2	4.1 to 7.7	7 15 to 8 16	4 84 to 5 06

*Price of provisions and fuel, and the daily wages of ordinary labor, &c.—Continued.*

Governmental districts and cities.	Coal.	Brown coal, (peak.)	Charcoal.	Average daily wages.*
<b>Gallcia:</b>	<i>Per ton.†</i>	<i>Per ton.†</i>	<i>Per ton.†</i>	<i>Cents per day.</i>
Lemberg .....	\$8 25 to \$8 64	\$4 42 to \$4 80	\$3 84 to \$4 72	22.5 to 31.6
Tarnopol .....			6 72	38.4
<b>Military Border:</b>				
Oloca .....		1 92 to 2 40		38.4
Weiskirchen .....	8 64 to 9 60	7 68 to 8 64	9 60 to 11 52	22.8 to 37.6
<b>Moravia:</b>				
Brünn .....	0 60	5 76 to 7 20	6 72 to 8 64	24 to 43
Kremsier .....	7 65 to 8 64		17 28 to 18 24	22.8 to 33.6
Neutitschin .....	9 22		11 52	33.6
Nikolsburg .....	8 64	9 60	34 56	22.8
Olmutz .....	8 06	8 06	7 68 to 9 60	22.8
Teltach .....	13 44	13 44	11 52	19.2 to 24
<b>Silesia:</b>				
Zauernig .....	9 31	2 59 to 4 99	16 80	12.2 to 24
<b>Bohemia:</b>				
Tabor .....	6 72 to 7 90		4 32 to 4 80	12.2 to 22.8
<b>Lower Austria:</b>				
Trelsmann .....				22.8 to 32.4
Vienna-Neustadt .....	11 52 to 12 48	8 64 to 9 60	5 76 to 9 60	22.8 to 42
<b>Steiermark:</b>				
Gras .....		3 65 to 3 84	4 80	22.8 to 42
<b>Kaernten:</b>				
Feldkirchen .....	5 18		9 60 to 12 48	33.6 to 32.4
Kappel .....	17 28 to 19 20		11 52 to 12 48	42
Klagenfurt .....	6 53	3 17	2 70 to 3 46	33.6 to 32.4
Villach .....	5 95		14 40 to 17 28	33.6 to 32.4
Völkermarkt .....			17 28 to 18 24	31.2 to 32.4
<b>Krain:</b>				
Lalbach .....	4 32		4 35 to 4 80	22.8 to 33.6
<b>Upper Austria:</b>				
Urfahr .....		4 42		33.6 to 32.4
<b>Tyrol:</b>				
Bosen .....			33 60 to 38 40	33.6 to 42.2
Meran .....			10 56 to 12 48	22.8 to 42

\* For ordinary labor.

† Per metric ton of 1,000 kilograms.

#### COST AND CONDITION OF LABOR IN AUSTRIA.

As the author was unable, from want of time, to visit Austria and make a personal investigation in regard to the cost and condition of labor in that empire, and as his efforts to obtain from consular and other original sources the necessary information were not attended with satisfactory results, he is under the necessity of drawing largely from the reports of the secretaries of legation and consuls of the British government. It is to be regretted that this information was not gathered by them at a later period than 1870, as in the following pages the rates of wages are given previous to the general advance in 1871 and 1872.

In the villages about Vienna there is a considerable number of weavers, who are also agricultural laborers; and in the mountainous woodlands of the Waldvientel, from Krems, on the Danube, northward to the Bohemian, and westward to the Upper Austrian frontier, the agricultural laborer, when field-work is slack, earns from 15 to 19 cents a day by weaving. These weavers are able to compete with the power-looms, in consequence of their extremely low wages and the coarse quality of the ware they produce, which cannot be made by machine-work. Considerable quantities of cloth-stuffs thus manufactured, and of very inferior quality, are not only consumed in Austria, but also exported at low prices to the Danubian Principalities and other parts of Turkey.

#### WAGES OF AGRICULTURAL LABOR.

In 1867 the average rate of wages of agricultural laborers in Austria was from 30 to 40 florins a year, (from \$14.40 to \$19.20,) of women, from 10 to 30 florins, (\$4.20 to \$14.40,) exclusive, however, of board and lodging, which is provided by the employer. But owing, probably, in part to the construction of railways, and in part to the general rise in prices, the rate of wages for agricultural labor has risen considerably throughout Austria during the last three years, and is still rising.

## PAYMENT OF WAGES IN MINES.

Every mine-contractor is bound by law to settle with his workmen, at least, quarterly. Whenever a workman is discharged he must be paid at once. No outstanding claim on the part of masters against men can legally invalidate or qualify the above-mentioned obligation.

The stoppage of a workman's wages by his employer for payment of debt contracted by the workman to a third person is illegal.

## WORKING-HOURS.

In the steel-casting factories wages are paid by hundred-weight produced. In the iron and lead refineries wages are also paid by weight, and the average length of labor at the blast-furnaces is twelve hours per diem. At puddling the men only work six hours at a time, with long intervals of repose between the different loadings of the furnace. At the end of every six hours one set of workmen is relieved by another. A rest every twelve hours is allowed in welding and rolling. For engine-waiters, and workmen employed in the refining forges, the work is from eight to eight and a half hours for every four "lonpes" or blooms, with a quarter of an hour's rest between each bloom. The day's work in this department is reckoned at ten and a half or eleven hours on the average. Wire-drawers and benders, pin-makers, rollers and water-drawers, work for twelve hours, stopping for breakfast and dinner. Coal-workers get their breakfast and dinner-hour free when they work for twelve hours, but not when they only work for eight hours. The average length of the working-day, therefore, does not exceed ten and a half or eleven hours.

## THE HOURS OF WORK, WAGES, AND INCREASE IN THE PRODUCTION OF WOVEN GOODS.

Work in the Austrian weaving establishments goes on throughout the whole year with the exception of Sundays, the church festivals, and certain national or local festivals.

The number of working-days, therefore, in most manufactories is about 300. The daily hours of work amount to twelve here and there, more especially in summer, to thirteen in other places, and in winter to ten or eleven.

The rate of wages varies according to the fluctuation of the average market price and the price of provisions in different districts. It adjusts itself further according to the description and sex of the laborer. In the year 1870 the daily wages of a laborer employed in the manufacture of textile fabrics, at their highest average, were as follows:

Districts.	Kreutzers.	U. S. cents.
Lower and Upper Austria .....	80 to 1 florin.	38 to 48
Voralberg .....	65	31
Tyrol .....	60	29
Bohemia, (flat or low country) .....	50	24
Galicia .....	40 to 45	19½ to 22
Other districts .....	55	26

Since then there has been everywhere an increase in wages, which amounts to and even exceeds 20 per cent.

With reference to the question of the increase of the produce of the loom in Austrian manufactories, no sufficient information can be given, because it is only latterly that statistical data have been collected on the advancement of industrial products. As far as can be gathered from them, the production of textile articles in Austrian establishments during the year 1870 are:

Articles.	Value—	
	In florins, (Austrian currency.)	In U. S. gold.
Cotton fabrics .....	35,000,000	\$16,800,000
Woolen fabrics .....	60,000,000	28,800,000
Silk .....	7,000,000	3,360,000
Ribbon, (lace-work and manufacture of borders) .....	10,000,000	1,800,000
Lin. manufactures: The portion produced in factories is small and amounts to .....	5,000,000	2,400,000

The cotton manufactures in the years 1870 and 1871 show a remarkable increase, which is principally to be attributed to the cheaper price of raw materials, and to the interruption of French and German competition on account of the war.

Woolen manufactures have also considerably increased since 1866, on account of the requirements of the army, and the increased consumption of such goods in the interior.

Since, however, the foreign, and especially the English, competition (favored by the lowering of the *agios* and the duties on imported woolen manufactures) has made itself felt to the most wonderful extent, the condition of this branch of industry has become less favorable.

Latterly, indeed, these (being principally concentrated in and about Vienna) have been injuriously affected by the great increase of wages, and some branches of the business have been affected to such an extent as not to make any return. \* \* \*

The number of flax-yarn factories at work in 1870 amounted to 62, with 370,790 spindles.

The manufacture of linen, especially in Bohemia, Silesia, and Moravia, is carried on principally by means of hand-looms. Spinning by machinery is being very slowly established. The number of machine-looms in use amounts to 346, of which 294 are in Silesia, 30 in Moravia, and 22 in Tyrol.

In Hungary there were in 1873 but four manufactories of textile fabrics, the highest average wages of male hands (at Losenz) being 38 cents, and the lowest, (at Kásmark,) 19 cents; of women, from 15 to 24 cents, and of children, from 9 to 15 cents, per day. Further quotations are made from the British consular reports, as follows:

#### FACTORY HANDS AND TRADE-WORKMEN.

Under this head there is a great deficiency of trustworthy official statistics. The following statements are based upon information collected from the Chambers of Commerce and Industry; and as they only refer to the larger establishments, they must not be regarded as a complete record of the condition of the working-classes employed. If the scanty statistics which are, as yet, the only ones accessible even to official inquiry, may be trusted, there are in Austria about 6,310,000 workmen. Of this number 17.2 per cent. (or £9,343) are provided with lodging by 493 employers. The mode of the provision made for their lodging is various; 1,348 workmen are lodged with their employers; 245 establishments provide free lodging only for 24,810 workmen; 4 establishments provide free lodging only for married men; 37 establishments furnish comfortable lodgings for married men at a low rent; 15 establishments, employing 2,290, provide beds at a small weekly charge for 1,053 workmen, and beds free of all charge for unmarried workmen; 87 factories, employing 8,512 hands, provide lodging and beds, rent free, for unmarried men, partly in workmen's barracks, partly in separate cottages; 18 establishments give lodging to 60,000 workmen. Lodgings, rent free, for superintendents, are provided by 28 factories, employing 2,607 hands. Allowance for rent is given by two establishments, employing 60 workmen.

Some few establishments undertake the construction of houses, of which, by the annual payment of a small rent, the workman can gradually purchase the ownership. Most of the Austrian railway companies, it may here be mentioned, allow a discount on the price of railway-tickets for workmen. The *Sudbahn*, for instance, is very liberal in this respect.

Board is wholly or partially provided by 379 establishments for 46,739 workmen, or about 13.7 per cent. of the whole working-class as above estimated. Many workmen are boarded entirely by their employers; others receive, for the cultivation of garden produce, &c., pieces of land rent free, or at a very trifling rent. In some factories food is distributed at wholesale prices to the hands; and in others, co-operative stores have been established by the workmen themselves. The capital for starting these stores is in many cases raised from loans advanced by the employers, or by the sick-relief fund, and they are generally supplied with store-room, and office buildings, free, on the premises of the factory. In some factories married men are supplied with food, and single men receive an allowance for board. In others, eating-houses are established, where a good dinner of soup, meat, and vegetables can be got at a very moderate price. For the kitchens of these eating-houses, the factories with which they are connected generally furnish the fuel, and sometimes the cooks. Many factories have their own baking-ovens, and some supply free rations of rice and potatoes to their hands.

*Sick relief and compensations, &c.*—Seven hundred and twenty-three establishments, employing altogether 141,764 hands, (about 40 per cent. of the whole working-class,) afford support, of one sort or other, to their hands in case of sickness, and compensation in case of accident or death. By 185 establishments (30,498 hands) the hospital fees for sick workmen are paid entirely. In five factories, 211 workmen, the expenses

for the care and cure of the sick are defrayed by the joint contribution of masters and men. In 496 factories (109,990 hands) relief societies and pension funds are established, to which the employers contribute a fixed sum, varying in amount from 12 florins to 420 florins per annum, in addition to a contribution of from 20 to 30 per cent. on the contributions of the workmen. The contributions of the workmen are graduated in proportion to their age and health, (on the life-insurance principle,) and vary from 1 to 7 per cent. of their wages. The majority of workmen pay only 1 or 2 per cent. Out of 64,000 hands, for instance, 16,000 are returned as paying 1 per cent., and 31,000 as paying 2 per cent. Those who pay only 1 per cent. receive, in case of sickness, medicine and medical attendance free; a small contribution to the burial expenses is also received by their families in case of death. Those who pay 2 per cent. receive, in addition to the above, support to the amount of half their wages, when they are on the sick-list. The average length of time for which this support is continued is eight weeks. More extended relief and other advantages can only be secured by contributions at the rate of 3 or 4 per cent. to the relief-fund. Those factories in which the workman's contribution to this fund is fixed at 5 or 6 per cent., afford pensions and small annuities to widows, orphans, and permanent invalids. The relief-fund itself, however, is rarely if ever able to bear these expensive claims upon it; and the system is only maintained by extensive assistance on the part of employers.

In the government factory at Zeltwig, for instance, this annual assistance amounts to the thousandth part of the gross profits. And by the Sudbahn engine-factory 1.60 per cent. of the annual wages is paid to the same account. In the chemical-factories, where labor is especially exposed to accident and loss of health, the rate is generally 7 per cent.

In the trades the care and cure of the sick is provided for by their respective "genossenschaften." Educational establishments for the working-classes have hitherto been insufficient in number and defective in quality. Seven factories support drawing-schools; fifteen support music-schools; thirty-nine afford gratuitous instruction in their own schools: thirty-one pay for schooling at the communal-schools; three factories pay only a certain annual sum to the communal-schools toward the education of the children connected with them. Sewing-schools for girls and nurseries for workmen's infants are numerous. They enable, wherever they are established, every respectable working-woman to place her infant where the greatest care is taken of it, without charge, during the time she is at work. Such an institution would be a god-send to many honest and hard-working English mothers.

As regards the education of the working-classes in Austria, there can be no reasonable doubt that an immense and beneficent stimulus will have been given to it by the recent school-bill already described.

*Working-hours.*—The statistics on this head are very incomplete. The average working-day seems to be about twelve hours.

It must be remembered, in connection therewith, that the working-classes in Austria at present enjoy no less than seventy-six whole holidays in the course of the year; and in some of the provinces the number of holidays is greater.

#### SURVEY OF THE PRINCIPAL TRADES FROM A WORKING-CLASS POINT OF VIEW.

The great deficiency of official statistics on the subject here especially considered has obliged me to confine the following short survey of the principal trades established in Austria to the representation of those trades at Vienna.

*Turners.*—One of the most important trades here represented is that of the turners. Its principal articles of manufacture are pipes and walking-sticks, &c.

*The shoemakers* number about 10,000 at Vienna. This trade, a very flourishing one, not only supplies all the Austrian and Hungarian markets, but also exports annually to the value of from 5,000,000 to 6,000,000 florins. One Vienna house alone exported in the course of last year the value of 400,000 francs. A good journeyman should earn as much as 2 florins (96 cents) a day. Piece-work is general in this trade.

*Joiners.*—There are about 8,000 of them in Vienna, and the supply of labor in this trade is considerably under the present demand, which within the last two or three years has been rapidly rising, in consequence of the great number of houses now building and furnishing at Vienna, and the large export of furniture to the principalities. The average rate of wages in this trade is from 2 florins 60 kreutzers to 3 florins (about \$1.20 to \$1.44) a day for good workmen.

*Tailors.*—This trade is perhaps the most prosperous of all. During the civil war in the United States a great part of the Union army was supplied with clothing from Prague and Vienna. A little later a single Vienna firm provided clothing for the whole of the Egyptian army. Yet, in spite of these facts, the complaint is general that the Austrian army, in 1866, was very insufficiently clothed, although, at the same time, the Saxon army was provided with good and sufficient clothing by the Austrian tailors.

The circumstance complained of must be entirely attributed to the jobbing of contractors. In this trade, also, the supply of labor is below the demand. Several master

tailors of Pesth, and other towns, recently endeavored to engage at Vienna 2,000 journeymen workmen, but in despite of high offers they were unable to obtain half that number. The rate of wages in this trade is from two to three florins (96 cents to \$1.44) a day. A system of piece-work carried on in this trade is very generally complained of by all the most respectable workmen in it.

There are about 2,000 master tailors at Vienna, employing about 6,000 workmen and apprentices. They have good markets in the principalities and along the Lower Danube. The capital of the Vienna tailors is about 400,000 florins, (\$192,000.)

*Weavers.*—There are about 10,000 silk, wool, cotton, shawl, ribbon, and lace weavers in the capital, residing chiefly in its western suburbs. Their average wages are low, and rarely exceed five florins (\$2.40) a week. Lately, however, the trade has improved, and the present wages of the Vienna ribbon-weavers average at about eight florins, (\$3.84.)

*Plumbers and lamp-makers.*—With a considerable export market; average rate of wages twenty florins (\$9.60) per week.

*Smiths and iron-workers.*—Supply of labor below demand; wages from two to three florins (96 cents to \$1.44) a day. The engine-factories of Messrs. Seigel, at Vienna and Wiewer-Neustadt, (which last year exported fifty locomotives to Russia,) employ upward of 2,000 hands.

*Carriage-builders.*—Business brisk; good home-markets in Austria and Hungary. Considerable export to the principalities and Russia. Wages high.

*Tanners.*—Work heavy and wages low. A strike of the tanners for higher wages in 1866 was summarily settled by wholesale imprisonment, and many of the men emigrated. But within the last year the rate of wages has been somewhat pushed up by the determined resistance of all the men to the old rates.

*Saw-grinders.*—Men and masters together, this trade numbers about 1,200 representatives at Vienna. This year the men struck for higher wages, \* \* \* which has had the effect of raising the rate of wages in the trade from four to five florins up to seven and eight florins (\$3.36 to \$3.84) a week.

*Builders.*—The rapidity with which houses are now being constructed at Vienna, to meet the wants of an enormously-increased population, has given an immense impetus to this trade. Although one establishment alone produces a million of bricks per diem, the supply of material is very inadequate to the demand, and the price of bricks is twenty-three florins (\$11.04) per thousand. The average rate of wages in this trade is, for a head workman, 62 cents a day; (the day's work being from 6 a. m. to 7 p. m.,) for an assistant workman, 48 cents, and for a woman 40 cents.

*Brass, bronze, and German-silversmiths.*—There are at Vienna about 900 workers in bronze; \$380 of them are married men. About 30 women are also employed in this trade. Of these 900, from \$2.88 to \$3.36 a week is earned by 200, from \$3.36 to \$4.32 a week by 500, and from \$4.32 to \$5.32 a week by 100. About 100 others earn by piece-work from \$3.36 to \$4.80 a week.

The German-silversmiths number 300 at Vienna. About 200 of them earn from \$2.88 to 3.36 a week, and the rest from \$3.36 to \$4.80 a week. The working-hours in this trade are from 6 a. m. to 6 p. m., with only one hour's rest for the day's meal. Many of the men work extra hours, at the rate of from 6 to 10 cents per hour. During the months from January to August, however, this trade is slack, and the masters then discharge the majority of their workmen. An unmarried workman cannot support himself at Vienna under 40 cents a day for board, at the rate of \$72 a year for lodging and clothing.

*Printers, setters, and type-founders,* number at Vienna about 2,000 workmen, and from 700 to 800 apprentices. The apprentices, after two years' service, earn from 96 cents to \$1.92 a week, but cannot become workmen until after four years' apprenticeship.

The workmen and apprentices have their own sick relief-fund, to which the monthly subscription is 24 cents.

The working-hours at the Vienna printing-offices are ten per diem, with extra wages for extra work. The men are now agitating for a reduction to nine hours. The average wages of a type-setter are from \$1.44 upward per diem. The number now employed at Vienna is 1,400.

*Bakers.*—Inferior workmen only earn about 72 cents a week, and head workmen about \$1.68 a week in this trade.

## RAGUSA.

The following is condensed from a report made by Mr. Paton, British consul at Ragusa, under date of February 12, 1872:

The chief cause of the miserable state of the agricultural laborer, and also of the embarrassed state of the proprietor, is the inequality of the olive-crop—one year most abundant, and then for two or three years not covering the expense of culture. In the good years, occasional olive-plantation labor is, relatively speaking, not ill paid, the

laborer receiving from 24 to 30 cents a day, without food; but when permanently employed not more than 10 or 12 cents a day, with food.

The following are the present rates of wages of the town-operative class in Ragusa: Workmen employed in the manufacture of the thick woolen long-pile blanket receive about 24 cents a day, without food. Hatters receive a little more; hoe-makers, about 22 cents.

The pay of a tinman, a plain house-painter, or a plumber is 32 cents; shoemakers earn from 24 to 28 cents; women who sew on the elastic part with the machine receive 16 cents; barbers, tailors, and smiths, mostly natives, earn 30 cents per day.

Among the more highly-paid work-people are boatmen, who, if they own a boat, make 40 to 48 cents per day. Masons and carpenters are also paid about 48 cents a day. Skilled apothecaries earn about 84 cents per day; street-porters about 20 cents. The worst-remunerated condition is that of the seamstresses, who do not make more than 12 cents per day; but a female dressmaker earns 24 cents. The best-paid artisans are jewelers, who receive from 60 to 72 cents per day.

#### CONDITION OF AUSTRIAN INDUSTRY.

Since this page was first put in type the following information has been furnished by Hon. Philip Sidney Post, consul general of the United States at Vienna:

During the years between 1867 and 1873, Austria enjoyed a high degree of industrial prosperity, but the year 1872 was characterized by extraordinary speculations, consequent upon the acquisition of most of the industrial establishments of the country by banks and joint-stock companies. In 1873 came a monetary crisis which deranged the entire industry of the country. In some branches of production there is still (August, 1875) the greatest distress. At Brunn the weavers, a particularly ill-paid class, whose condition has recently been rendered worse by the introduction of new machinery and an increase in the cost of living, have been on strike for several months, and a large body of military has been required to preserve the peace. The iron-industry of Vienna is now generally paralyzed. The railways are economizing and few orders are given. In the great works of the Staatsbahn, where in 1872 good workmen received from \$1.36 to \$4.80 per day, none are now paid more than \$1.44, and it is feared that the establishment will close entirely.

The workmen, attracted in good times to the manufacturing centers, are sent back in times of distress to the districts in which they were born or had acquired a residence, these districts being chargeable for their support.

#### HABITS AND CONDITION OF WORK-PEOPLE IN AUSTRIA.

The improvidence of the Austrian workmen is illustrated in the result of an effort to increase the production of pearl buttons, the demand for which in Austria has long exceeded the supply. An increase of wages produced an effect directly contrary to the one anticipated, for the men finding it possible to live by three days' work per week, instead of the five to which they had been accustomed, devoted the other two days to recreation. The people are industrious, but fond of amusement, and few of them work as energetically as do persons of their class in England or America, though when not interrupted by the numerous holidays observed here, they are usually steady and methodical in their labor. They all drink beer or wine, but there is no such thing as intemperance in the American sense, and cases of drunkenness, if they occur, must be rare indeed.

In the large cities house-rent is high, and the houses of the workmen are far from comfortable. In Vienna the state and municipal tax on rent approaches 50 per cent. of the rent paid. It was a fraction over 42 per cent. last year. The enhancement of prices consequent upon an excessive paper currency has not been attended with a proportional increase of wages, and the laboring classes are now in a suffering condition even when employed, while the unemployed are dependent upon public assistance in the districts to which they belong.

#### Extract from the Baltimore American of June 29, 1873:

All the most menial work in Vienna is done by women, such as cleaning and sweeping the streets, gathering up garbage, carrying water, and pumping it from the cisterns to the reservoirs in the upper stories, sawing wood, spading the ground, the making and carrying mortar in buckets, and handling the brick used in building. There are, no doubt, many thousands of them to-day doing this species of laboring-work in Vienna. They are of all ages, young, middle-aged, and old; but all seem to be strong and healthy. The wages are one florin (48 cents) per day.



## LABOR IN SWITZERLAND.

The various industries of this little state, which, in its mountain home, has for nearly six centuries preserved its independence, are of deep interest to the citizens of a newer but more widely extended republic. It is to be regretted that the labor of so worthy and industrious a people should have received so inadequate a reward, for in few parts of Europe have the earnings of the working-people been so poorly paid. These low rates of wages have induced a comparatively large emigration, chiefly to the United States,\* where the rewards of industry were more abundant.

## EXPORTS TO THE UNITED STATES.

The manufactures of Switzerland, which to any considerable extent find a market in the United States, are chiefly confined to two, viz, silk goods and watches.

The following table, which gives the value of the principal articles of Swiss production which were exported into the United States in the decade from 1864 to 1873, is translated from a statement published by the Statistical Bureau of Switzerland:

*Statement showing the exports from Switzerland to the United States in the ten years from 1864 to 1873, inclusive.*

[Franc computed at 19½ cents.]

Articles.	1864.	1865.	1866.	1867.	1868.
Silk, and manufactures of.....	\$4, 963, 198	\$5, 744, 240	\$6, 194, 491	\$3, 668, 594	\$4, 133, 531
Tissues of cotton and wool.....	321, 230	832, 436	1, 008, 793	397, 474	942, 367
Embroideries.....	68, 694	220, 785	631, 047	615, 047	594, 775
Braiding straw and horse-hair.....	157, 307	296, 631	620, 060	474, 319	400, 987
Watches and parts of.....	1, 653, 052	2, 203, 881	2, 553, 215	2, 020, 672	2, 041, 567
Music-boxes.....	14, 134	21, 138	58, 501	51, 713	67, 667
Cheese.....	47, 107	95, 525	138, 525	161, 391	206, 280
Leather.....	4, 314	.....	21, 623	30, 563	42, 508
Sundries.....	36, 081	94, 774	214, 216	235, 058	316, 342
Total.....	7, 265, 045	9, 509, 410	11, 440, 471	7, 655, 761	8, 054, 974

Articles.	1869.	1870.	1871.	1872.	1873.
Silk, and manufactures of.....	\$5, 567, 812	\$6, 929, 733	\$8, 370, 963	\$7, 948, 364	\$5, 276, 881
Tissues of cotton and wool.....	439, 361	232, 996	385, 027	516, 414	572, 222
Embroideries.....	759, 857	1, 357, 669	2, 007, 288	2, 230, 949	2, 116, 397
Braiding straw, and horse-hair.....	546, 539	757, 392	605, 805	258, 398	430, 879
Watches and parts of.....	2, 597, 903	3, 219, 872	3, 335, 622	3, 570, 940	2, 545, 539
Music-boxes.....	50, 454	66, 524	68, 374	86, 161	84, 547
Cheese.....	247, 341	304, 280	399, 223	434, 627	493, 261
Leather.....	8, 698	113, 525	136, 768	87, 141	63, 100
Sundries.....	298, 664	451, 108	492, 687	366, 504	263, 426
Total.....	10, 516, 629	13, 493, 099	15, 731, 757	15, 498, 816	11, 776, 494

\* The number of immigrants into the United States from Switzerland during the last fifty-four years is as follows:

Decade 1821-1830.....	3, 257
1831-1840.....	4, 621
1841-1850.....	4, 644
1851-1860.....	25, 011
1861-1870.....	23, 839
Year 1871.....	2, 624
1872.....	4, 031
1873.....	3, 223
1874.....	2, 426
Total.....	74, 066

The following statement, compiled from the records of the United States Bureau of Statistics, shows the values of the principal articles which were imported from Switzerland during the fiscal year 1874, and the countries through whose ports the various commodities reached the United States:

*Statement of imports (indirect) from Switzerland into the United States during the fiscal year ended June 30, 1874.*

Commodities.	Quantities.	Values.
<b>FREE OF DUTY.</b>		
Bolting-cloths.....		\$133, 755
Books, &c.....		1, 334
Chemicals, dyes, &c.....		4, 003
Horse-hair used for weaving.....pounds..	1, 110	1, 486
Silk, raw.....do.....	2, 658	23, 435
All other articles not elsewhere specified .....		2, 652
<b>Total .....</b>		<b>166, 665</b>
<b>DUTIABLE.</b>		
Books, &c.....		32, 858
Brass, and manufactures of.....		14, 571
Buttons of all kinds .....		1, 591
Chemicals .....		6, 596
Clothing.....		945
Cotton manufactures .....		2, 653, 883
Fancy goods.....		9, 366
Flax manufactures .....		90, 113
Glass-ware.....		5, 694
Hair manufactures .....		68, 642
Iron and steel manufactures .....		43, 309
Jewelry .....		27, 569
Leather of all kinds.....pounds..	119, 800	80, 010
manufactures of.....		2, 112
Musical instruments.....		58, 671
Paintings, &c.....		8, 945
Precious stones .....		30, 005
Provisions .....		396, 767
Silk manufactures .....		4, 504, 170
Straw manufactures .....		363, 286
Watches.....		2, 086, 649
Wine and spirits.....		6, 186
Wood manufactures .....		11, 884
Wool manufactures .....		10, 304
All other articles not elsewhere specified.....		1, 707
<b>Total dutiable.....</b>		<b>10, 424, 131</b>
<b>Total free of duty .....</b>		<b>166, 665</b>
<b>Total imports.....</b>		<b>10, 590, 796</b>

The above imports into the United States from Switzerland were made through the ports of—

Belgium .....	\$12, 545
France .....	5, 285, 833
Germany .....	3, 796, 114
England .....	1, 488, 452
Scotland .....	972
Netherlands.....	6, 880
<b>Total .....</b>	<b>10, 590, 796</b>

#### WATCH-MAKING.

Although the exports of silk manufactures exceed in value those of watches, yet the latter industry is more widely extended, and of more advantage to the country, in consequence of the employment which it affords to the people, especially to women and children. Geneva and Locle are celebrated for the extent of the products of watches, but the

principal seat of the industry is at Chaux de Fond, which is the largest settlement where watch-making is carried on. In the valleys of the canton of Neuchâtel (in which this town is situated) you will hardly pass a farm-house without seeing one or more windows designed to let light fall upon a workman's bench.

The statement above presented gives the value of watches and watch-materials which were exported to the United States during a decade; but the value of the whole annual production of Switzerland is stated to be \$17,600,000. It must be borne in mind that this is but the original cost of manufacture, without the addition of profit or duty. Indeed, the exports consist largely of watch-movements, and, therefore, afford but an inadequate idea of the value of Swiss watches to the wearers, after gold and silver cases have been supplied, and the various dealers and the government have imposed their respective tariffs. The following is the estimated production of watches :

*Estimated comparative production of watches in the principal manufacturing countries.*

Countries.	Number of watches.	Value.
Switzerland.....	1,000,000	\$17,000,000
France.....	300,000	3,300,000
England.....	200,000	2,200,000
United States.....	100,000	1,300,000
Total.....	2,200,000	25,000,000

From the general census of Switzerland of December 1, 1870, and the report of Dr. Hirsch on the industry of watches at the Vienna Exposition, the following information is obtained :

*Number of laborers in the manufacture of watches in Switzerland, by cantons and sex.*

Cantons.	Males.	Females.	Total.
Neuchâtel.....	11,081	5,383	16,464
Berne.....	9,309	4,743	14,135
Vaud.....	2,439	1,313	3,732
Geneva.....	2,330	1,288	3,619
Total.....	25,942	12,727	27,969

Dependent on these 27,969 persons are about 47,000, making (in a round total) 75,000 persons living from the industry of watches in Switzerland.

**RATES OF WAGES.**

As the author was unable to visit the manufacturing towns of Switzerland, and make personal inquiries in regard to the cost and condition of labor therein, he is able only to present such limited data in that regard as has been recently furnished by the consuls of the United States. For less recent but more full information he has drawn largely from the British consular reports.

Owing to the varied sources of information, it is impossible to make the same classification as has been made in the case of Germany and other countries.

## MECHANICAL AND FARM LABOR.

The figures in the following tables were furnished by the United States consuls of the districts indicated, in November, 1873.

*Rate of wages paid for mechanical labor in Chaux de Fond, Zurich, and Basle, Switzerland, in the year 1873.*

Occupation.	Chaux de Fonda.	Zurich.	Basle.
<b>SKILLED WORKMEN, BY THE DAY ONLY.</b>			
Watchmakers .....	\$1 50	.....	\$0 60
Blacksmiths .....	75	\$1 00	.....
Bricklayers or masons .....	75	90	76
Cabinet-makers .....	1 00	90	60
Carpenters .....	1 00	90	1 00
Coopers .....	.....	80	60
Machinists .....	1 20	\$1 00 to 1 25	1 20
Painters .....	1 00	90	73
Plasterers .....	1 00	1 00	80
Shoemakers .....	75	70	70
Stone-cutters .....	1 00	1 20	90
Tailors .....	80	80	60
Tanners .....	.....	60	70
Timsmiths .....	80	60	70
Wheelwrights .....	75	80	70
<b>PRICE OF BOARD.</b>			
For workmen, per week, October, 1873 .....	2 50	2 00 to 3 00	.....
For workwomen, per week, October, 1873 .....	1 75	1 50 to 2 00	.....

*Rate of wages paid for farm-labor in Basle, Zurich, and Chaux de Fond, Switzerland, in the year 1873.*

Occupation.	Daily wages in Basle, with board.	Daily wages in Chaux de Fond, with board.	Daily wages in Chaux de Fond, without board.	Yearly wages in Zurich, with board.
<b>FARM-LABORERS.</b>				
Experienced hands in summer .....	\$0 40	\$0 45	\$0 75	\$120 to \$160
Experienced hands in winter .....	24	.....	.....	.....
Ordinary hands in summer .....	32	.....	.....	100 to 120
Ordinary hands in winter .....	20	.....	.....	.....
Common laborers at other than farm-work .....	40	.....	\$0 50 to 65	.....
Female servants .....	16	.....	.....	50 to 60

## WAGES IN A SILK-RIBBON FACTORY.

Mr. Consul Erni forwards the following statement of the rates of wages paid in 1873 by Messrs. Fichter & Sons, manufacturers of ribbons at Basle :

	Per week.
Various inferior work done by girls from fourteen to fifteen years .....	\$1 40 to \$2 00
Ribbon finishers or cleaners, girls from fourteen to twenty years .....	1 80 to 2 40
<b>Work by the piece :</b>	
Silk-winding, women and girls .....	2 00 to 2 40
Women preparing the warp .....	3 20 to 5 00
Weavers, both men and women .....	4 00 to 7 20

## WAGES AND COST OF SUBSISTENCE.

The following letter from Mr. Consul Byers, dated Zurich, March 29, 1873, accompanying a statement of wages in 1873, and the prices of

articles of subsistence at different periods since 1800, affords some indication of the condition of the laboring classes :

SIR: In accordance with your request, I have made out a schedule of prices for the leading articles of subsistence at this city during the different decades of the last seventy years. I also include present wages paid workmen here. The wages paid now are proportionately larger than the prices paid for provisions seventy years ago. The workmen's houses are good, built of stone usually, but are poorly ventilated, and often crowded with many families in a house. The distinction made here between common laborers, mechanics, &c., and the upper or non-laboring classes, is one not easily realized by an American. A gulf extends between the consumer and the producer. The simple truth of the matter is, the workingman lives very poorly here, as in Germany. He works ten hours a day, with one hour's rest at noon, and has, until since the labor "strikes," been very poorly paid. The prices shown in the table, as well as the wages mentioned, are those of to-day in Zurich, and not of yesterday.

Poor pay and poor living, as a rule, have not tended to make the best or the most rapid workmen. The dress of the working-classes is tolerably good. Many holidays are allowed, and this is a relief, of course, to the usual hum-drum life led by a common workingman. Much wine and beer is used by all classes, especially the lower, who make up in quantity what is lacking (and there is a good deal) in quality. Drunkenness does not, I think, prevail among the working-classes as much here as in America or in England, but tipsiness is not always the exception. Since the great battle between capital and labor has commenced, the condition of the workingman of Switzerland has been visibly, and I trust permanently, improved. One of the greatest influences at work here in behalf of the poorer classes, is placing authentic information in the hands of the people in regard to the opportunities that await industry and honest labor in the New World, and I hold it to be a religious, as well as an official, duty of our consuls and diplomatic officials abroad, to scatter the truth regarding our country to the people here in Europe whenever opportunity is to be had. The accompanying table will give an idea of the workingman's living earnings in Zurich, all of which are rapidly increasing.

*Daily wages of mechanics.*

	Cents.		Cents.
Machinists.....	60 to 80	Stonemasons.....	90 to 100
Tinners.....	60	Bricklayers.....	90
Founders.....	80 to 100	Saddlers.....	60
Carpenters.....	80 to 90	Shoemakers.....	60 to 80
Cabinet-makers .....	80 to 90		

First-class engravers and good jewelers earn much higher wages, reaching sometimes from \$1.20 to \$2.40 and even \$3 per day. Common laborers earn from 40 cents to 60 cents a day. In silk establishments and cotton-spinning mills, &c., a large number of women are employed who earn daily from 30 cents to 40 cents. Number of working-hours, ten a day, with one hour's rest at noon. Rent for one floor of four to five rooms for working-people from \$80 to \$120 per year.

*Statement of prices of articles of subsistence in Switzerland from the year 1800 to the present time.*

[The franc computed in U. S. coin at 20 cents]

Year.	Two pounds of bread.	One pound of beef.	One pound of butter.	One quart of milk.	One pound of potatoes.
1800 .....	11½ cents.....	7 cents.....	13 cents.....	.....	.....
1825 .....	5 3-5 cents.....	5 1-5 cents.....	13 cents.....	.....	.....
1850 .....	6 3-5 cents.....	5 4-5 cents.....	14 cents.....	1 4-5 cents.....	3 3-5 cents.....
1873 .....	10 2-5 cents.....	17 cents.....	24 4-5 cents.....	4 4-5 cents.....	1 2-5 cents.....

Flour, 6 cents a pound; sugar, 11 cents a pound; cheese, 18 cents a pound; beer, 3 cents a glass; pork, 17 cents a pound; ham, 24 cents a pound; veal, 20 cents a pound; wine, 10 cents a bottle.

## INCREASE IN EXPENSES OF LIVING.

The following is an extract from a pamphlet by Mr. A. Chatelant of the statistical bureau at Berne :

The increase of expenses of living in Switzerland was a constantly progressive one from the year 1840 up to the year 1850, and not an irregular augmentation. The total difference now amounts to from 75 to 100 per cent., as will be proved by the following statement, showing the percentage of rise in the price of each single article :

	Percentage of increase.
Brown bread.....per pound..	66.6
White bread.....do.....	21
Middling white bread.....do.....	31.2
Veal.....do.....	94.1
Mutton.....do.....	84.8
Beef.....do.....	80.6
Bacon.....do.....	49.2
Pork, (live hogs).....do.....	54.5
Butter.....do.....	61.6
Butter in bulk.....do.....	64.2
Lard.....do.....	30.6
Potatoes, (white).....per 15 liters..	40
Potatoes, (red).....do.....	46.3
Cabbage.....per 25..	77.9
Eggs.....per piece..	55.5
Sweet apples.....per 15 liters..	50
Sour apples.....do.....	70.8
Pears.....do.....	50
Sliced dried apples.....do.....	27.9
Sliced dried pears.....do.....	86.7
Pease.....do.....	88.3
Beans.....do.....	86.8
Oatmeal.....do.....	56.5
Cheese.....per pound..	80 to 90
Milk.....the measure of 4 pounds (Swiss "mass")..	166.6

The price of foreign provisions increased in nearly the same or even at a higher ratio than those of home production, as appears from the statistical price-lists of Hamburg :

	Percentage of increase.
Wine.....	120.2
Coffee.....	71.9
Sugar.....	14.7
Tobacco.....	54.3
Rye-flour.....	139.3
Beechen fire-wood.....	101.6
Fire-wood of pine.....	90.7
Coal.....	50

And there was also a great augmentation in the prices of clothing, shoes, house-rent, light, washing, taxes, and medicine.

In the period from 1861 to 1872, the general increase in the expenses of living was from 35 to 45 per cent., and of provisions from 30 to 40 per cent. Mr. Chatelant arrives at the conclusion that in the cities of Berne and Basle, (expenses at Zurich and Geneva are fully as high,) an income of from 3,500 to 4,000 francs (\$700 to \$800) barely furnishes a tolerable existence without any aspirations as to comfort or any savings for time of need.

## PRICES OF PROVISIONS, GROCERIES, ETC.

*Prices of provisions, groceries, and other leading articles of consumption, also of house-rent and board, in the manufacturing towns of Basle, Zurich, and Chaux de Fond.*

Articles.	Basle.		Zurich.		Chaux de Fond.		General average.
	Retail prices in—		Retail prices in—		Retail prices in—		
	1872.	1873.	1872.	1873.	1872.	1873.	
PROVISIONS.							
Flour, wheat, super. . . per bbl.	\$9 00	\$6 00	.....	*\$0 07	\$0 06*	\$0 05*	.....
Flour, wheat, ex. family. . do.	10 00	6 40	*\$0 06½	*06½	05*	05*	.....
Flour, rye. . . . .	6 00	5 60	*06	*05	04*	04*	.....
Corn meal. . . . .	6 00	.....	*05	*04	.....	04*	.....
Beef, fresh, roast. . per pound.	15	18	16	18	18	.....	\$0 17
Beef, fresh, soup pieces. . do.	12	.....	16	.....	18	25	14
Beef, fresh, rump steaks. . do.	17	18	16	18	18	25	14
Beef, corned. . . . .	.....	.....	10	18	18	20	16½
Veal, fore-quarters. . . do.	15	20	19	21	17	20	15½
Veal, hind-quarters. . . do.	16	20	19	21	17	20	15½
Veal cutlets. . . . .	18	22	19	21	17	20	19½
Mutton, fore-quarters. . do.	14	17	13	14	18	20	16
Mutton, leg. . . . .	15	.....	13	14	18	25	17
Mutton-chops. . . . .	15	.....	13	14	18	25	17
Pork, fresh. . . . .	14	18	14	17	24	25	17½
Pork, corned or salted. . do.	21	.....	13	.....	25	25	21
Pork, bacon. . . . .	.....	18	.....	24	25	25	23
Pork, hams, smoked. . . do.	26	28	18	28	25	28	24½
Pork, shoulders. . . . .	14	.....	.....	26	25	28	24½
Pork, sausage. . . . .	.....	25	.....	.....	25	28	26
Lard. . . . .	13	24	19	16	25	.....	19
Codfish, dry. . . . .	04	.....	.....	10	.....	.....	07
Butter. . . . .	25	26	26	30	2-	30	27½
Cheese. . . . .	13 to 18	24	16	20	20	18	19
Potatoes. . . . . per bushel	95	*01½	1 10	*01	50	50	74
Rice. . . . . per pound	05 to 06	06	06	06	06	06	06
Beans. . . . .	04 to 05	06	04	05	08	06	05½
Milk. . . . . per quart	03½	06	05	03	05	06	04½
Eggs. . . . . per dozen	36	20	18	20	18	20	21
GROCERIES, ETC.							
Tea, Oolong, or other good black. . . . . per pound.	1 20	.....	1 44	1 00	1 00	1 00	1 16
Coffee, Rio, green. . . do.	19 to 20	24	25	24 to 28	20	25	25
Coffee, Rio, roasted. . . do.	.....	30	25	32	24	.....	24
Sugar, good brown. . . do.	13	13	.....	14	12	12	12 8
Sugar, yellow. . . . .	13	02	.....	14	10	12	11 6
Sugar, coffee. . . . .	.....	10½	12	10	10	12	11
Molasses. . . . .	.....	.....	16	.....	09	06	10½
Sirup. . . . .	.....	.....	16	.....	08	10	11½
Soap, common. . . . .	08 to 09	08	08	07	10	08	09½
Starch. . . . .	08 to 09	08	10	08	10	18	10½
Fuel, coal. . . . . per ton	8 50	8 50	.....	.....	.....	.....	8 50
Fuel, wood, hard. . . per cord	8 00	8 00	.....	9 00	10 00	11 00	9 20
Fuel, wood, pine. . . do.	.....	.....	.....	5 60	7 00	8 00	6 87
Oil, coal. . . . . per gallon	96	96	.....	.....	.....	.....	.....
DOMESTIC DRY GOODS, ETC.							
Shirting, brown, 4-4, standard quality. . . . . per yard.	21 to 24	21 to 24	23	24	20	20	22
Shirting, bleached, 4-4, standard quality. . . . . per yard.	39	39	31	.....	24	24	31 4
Sheeting, brown, 9-8, standard quality. . . . . per yard.	30	30	38	21	28	28	29 1½
Sheeting, bleached, 9-8 standard quality. . . . . per yard.	37 to 40	37 to 40	.....	.....	.....	.....	38½
Cotton flannel, medium quality. . . . . per yard.	76	76	67	.....	.....	.....	73
Tickings, good quality. . do.	.....	.....	.....	.....	50	50	50
Prints. . . . .	19 to 22	19 to 22	24	22½	20	20	21½
Mousseline de laines. . . do.	15 to 45	15 to 45	25	.....	.....	.....	26½
Satinets, medium quality. . do.	45	45	29	.....	50	50	43 8
Boots, men's, heavy. . . do.	.....	.....	5 00	.....	5 00	5 00	5 00

\* Per pound.

## PRICES OF PROVISIONS, GROCERIES, ETC.

*Prices of provisions, groceries, and other leading articles of consumption, &c.—Continued.*

Articles.	Basle.		Zurich.		Chaux de Foud.		General average.
	Retail prices in—		Retail prices in—		Retail prices in—		
	1872.	1873.	1872.	1873.	1872.	1873.	
HOUSE-RENTS.							
Four-roomed tenements, per month.....	\$6 00	\$13 30	\$4 87	\$3 00 to \$4 00	\$2 50	\$14 00	\$8 36
Six-roomed tenements, per month.....	\$10 00 to 12 00	20 00	9 50	4 00 to 10 00	10 00	16 50	12 33
BOARD.							
For men, (mechanics or other workmen)..... per week.	1 70 to 1 80	1 89	\$1 90 to 2 28	2 00 to 3 00	3 00	2 50	2 30
For women employed in factories..... per week.	1 30	1 50	1 33 to 1 52	1 40 to 2 00	2 50	1 75	1 66

## EXPENDITURES OF WORKINGMEN'S FAMILIES.

*Table showing the income and expenditures of the families of five workmen in Basle, Switzerland, in the year 1872.*

[Furnished by Professor H. Kinkel, of Basle.]

	FAMILY—				
	I. Ribbon-weaver, wife, and four children.	II. Silk-ribbon weaver, wife, three children, and one female servant.	III. Mechanic, wife, and two children.	IV. Founder in machine-shop, wife, and three children.	V. Carpenter in machine-shop, wife, and two children.
<b>Weekly earnings:</b>					
Man.....	\$5 88	\$5 60	\$5 70	\$7 32	\$6 60
Wife.....	2 88	5 20	2 40	40	.....
Children.....	.....	.....	.....	.....	1 80
Total.....	8 76	10 80	8 10	7 72	8 40
Total, say 52 weeks.....	455 52	561 60	421 20	401 44	430 80
<b>Weekly expenditures:</b>					
Flour and bread.....	1 30	1 48	80	1 11	1 12
Meat.....	60	48	1 09	1 12	56
Butter.....	40	39	40	28	22
Cheese.....	.....	.....	20	.....	.....
Sugar.....	10	11	11	11	13
Milk.....	1 00	1 26	70	53	48
Coffee, and substitutes.....	20	24	24	20	22
Soap, starch.....	12	12	10	09	12
Salt, pepper, vinegar, olive-oil.....	20	08	10	06	08
Potatoes, vegetables.....	54	80	50	52	40
Oil or petroleum.....	14	12	24	13	20
Wine, beer, tobacco.....	40	28	1 40	84	24
Other articles.....	.....	20	40	.....	16
Total.....	5 00	5 56	6 28	4 99	3 93
Total for 52 weeks.....	260 00	289 12	326 56	259 43	204 36
<b>Annual expenditures:</b>					
Coal and wood.....	20 00	24 80	14 00	18 00	20 00
Rent of house.....	60 00	88 00	52 00	60 00	52 00
School and church.....	10 00	6 00	.....	1 80	3 00
Clothing and shoes.....	58 00	52 00	50 00	66 00	30 00
Taxes.....	1 80	60	2 14	2 05	1 65
Total.....	409 80	459 72	444 70	407 33	311 01



## REMARKS BY PROFESSOR KINKELIN.

Family I. The weekly earning of the husband, as workman in the factory, is only \$2.80. He makes about \$140 during the year, by extra work. The mother earns her money by cleaning two school-houses. To the expenses must be counted \$10 for insurance of the family in a society for relief during sickness, &c.

Family II. The mother works also as ribbon-weaver. Husband and wife work in the same factory.

Family III. The mother works as ribbon-weaver; the husband as mechanic. It is believed that the expenses are given very high, and the earnings too small. The husband has given his earnings as \$4.20, but his employer gives it positively as \$5.70.

Family IV. It is not known at what the wife works.

Family V. One child works in the ribbon-factory. Boots, &c., worth about \$20, are not included.

In families III, IV, and V, the weekly earning of the husband is given by the employers, calculated from the months of June, July, and August, 1872.

The expenses as well as the earnings are not at all times the same as given, but sufficiently accurate for comparative statements.

Concerning the expenses of the five families, I wish to state that the first estimate was given to me by the husband of the family in question; the second one was made by a competent and experienced man; the same as to the three others.

I regard the same as good as can be made. An account of expenses is seldom kept by workmen. (An exception seems to be family IV.) They use the money as long as they have any. With little money they use little; with more money they live better.

Mr. Consul Byers, under date of Zurich, October 16, 1873, in transmitting a statement giving the cost of provisions and other articles of subsistence, and another of the expenses of a family of five persons, makes the following remarks:

In the list of the weekly expenses of a teacher's family of five persons, the average is about the same as for workmen, and shows plainly that the income is less than the expenses. There are cases authentically reported showing that an industrious workman cannot, even with the help of his wife's hands, earn nearly the amount required for the common necessities of life, not to mention such a thing as luxuries. The figures were exactly these: Earnings of man and wife, 1,700 francs; expenses of the family, 2,212 francs. These figures tell the simple tale for Switzerland, and no amount of fine-spun theories and loose assertions can alter them; they are there, and the workman knows them to be sober and fearful facts.

The rates of wages now paid in Switzerland to all kinds of workmen are very much higher than they ever were before. I might add that house-rent is continually on the increase, and the tenements that are rented at the prices stated, 15 to 20 francs (\$3 to \$4) per month, are by no means over-comfortable or pleasantly and healthfully situated.

## RATES OF WAGES AND COST OF SUBSISTENCE.

*Average rates of daily wages in the cotton, flax, wool and silk factories of the canton of St. Gall, Switzerland.*

[Condensed from the British consular reports.]

	Men.	Women.	Children.
	<i>Cents.</i>	<i>Cents.</i>	<i>Cents.</i>
<b>COTTON.</b>			
Wadding factory.....	32 to 60	20 to 34	14 to 20
Cotton, thread, and knitting-yarn factory.....			14
Spinning-mills.....	30 to 80	22 to 30	15 to 20
Mechanical spooling and twisting mills.....	20 to 30		
Ordinary hand-weaving mills:			
1. Plain stuffs.....	13 to 50	12 to 30	4 to 16
2. Checkered-weaving mills.....	18 to 50	12 to 36	4 to 20
3. Figured-weaving mills.....	37 to —	24 to —	7 to —
Jacquard-loom weaving mills.....	22 to 60	15 to 40	15 to 16
Power-loom weaving mills:			
1. Plain stuffs.....	24 to 80	24 to 36	16 to 25
2. Checkered stuffs.....	40 to 50	30 to 40	14 to 20
Stocking and hosiery weaving mills.....	40 to 80	18 to 24	.....
Hand embroidery.....	10 to 25	10 to 20	4 to 10
Mechanical embroidery.....	32 to 80	20 to 40	12 to 25
Linen manufactories ("singerien").....	20 to 30		



Factories of surgical and optical instruments.....	50 to 70
Water-color factories.....	
Tool-factories.....	60
Scythe-factories.....	40
Threshing-machine factories.....	36 to 40
Furniture-factories.....	72

### Preparation of vegetable and animal substances for industrial purposes—

Oil-mills .....	40 to 60
Tan-mills .....	40 to 60
Saw-mills .....	40 to 60
Hemp-crushing mills .....	24
Frame-saw mills and parqueterie factories .....	40 to 70
Reed-makers, men .....	40 to 60
women .....	24 to 30
Bone-mills, men .....	40 to 50
Tanneries .....	30 to 60
Candle and soap factories .....	40 to 60
Brush-factories .....	34
Starch .....	40 to 44
Dyed and varnished leather factories .....	
Oil-cloth and waxed paper factories .....	40
Waxed goods factories .....	40
Straw-hat factories .....	30

**Printing-establishments, &c.—**

Printers, men.....	44 to 80
women.....	20
children.....	20
Lithographers, men.....	50 to 80
children.....	20
Photographers, men.....	40 to 80

**Paper, wooden, and hardware manufactories—**

Paper-mills, paper and pasteboard factories, men.....	50 to 60
women .....	16 to 20
Maize straw-paper factories, men.....	40
women .....	20
Carpet and stained paper factories, men.....	40
Playing-card factories.....	40
Window-blind factories.....	
Bone-turning mills.....	50
Wood-carving factories.....	40 to 60
Gold-band factories.....	50

**Articles of consumption—**

In corn-mills.....	40 to 60
In manufactories of Italian pastes, men.....	30 to 50
women.....	20 to 40
children.....	20
Chicccory-factories, men.....	34
women.....	18
children.....	14
Mustard-factories, men.....	40
Breweries.....	36 to 80
Distilleries.....	40 to 60
Tobacco and cigar factories, men.....	35 to 80
women.....	18 to 40
children.....	15

*Amount of daily wages in the canton of Valais.*

Vine-dressers, men .....	40 to 60
women .....	30 to 36

Agricultural laborers, men.....	24 to 40
Day-laborers .....	20 to 40
Men engaged in breaking up ground.....	40 to 50
Mowers.....	60 to 70
Wagoners (with yoke of oxen).....	80 to 100
Printers .....	46 to 60
Bookbinders .....	40 to 50
Watchmakers .....	20 to 36
Mechanics .....	20 to 40
Tailors .....	40 to 50
Shoemakers.....	30 to 56
Saddlers .....	20 to 60
Locksmiths .....	40 to 70
Smiths.....	28 to 50
Joiners .....	40 to 60
Tanners.....	20 to 36
Gardeners.....	36 to 60
Bakers.....	22 to 28
Millers.....	40 to 60
Cartwrights .....	30 to 42
Tinkers.....	36 to 60
Gunsmiths.....	80 to 120
Cooks, men, engaged by the year.....	20
women, for 250 days.....	8
Seamstresses .....	20 to 22
Milliners.....	20 to 36
Masons .....	20 to 56
Washerwomen .....	36
Head waiters engaged by the year.....	20
Waiters.....	20
Chambermaids.....	20
Parlor-maids .....	20
Hostlers .....	20
Maid-servants.....	8 to 10
Carpenters.....	40 to 56
Stone-cutters.....	50 to 60

## CANTON OF GENEVA.

Occupation.	Average wages per week.	House-rent per week.	Living per week.
Working jewelers, (men).....	\$6 60	\$0 69	\$2 80
Working jewelers, (women).....	4 20	69	2 00
Tinkers.....	3 00	69	2 25
Potters.....	2 76	69	1 68
Saddlers.....	3 12	69	2 25
Coopers.....	3 24	69	2 25
Bakers.....	*2 80	69	1 68
Butchers.....	3 60	69	2 25
Joiners.....	2 64	69	1 68
Wood-cutters .....	3 96	69	2 25
Journeyman tailors .....	3 60	69	2 25
Hair-dressers and barbers .....	2 40	69	1 68
Locksmiths .....	2 28	69	1 68
Gilders.....	4 56	69	2 25
Watchmakers, (men).....	5 40	69	2 25
Watchmakers, (women) .....	3 00	69	1 61
Bookbinders.....	3 00	69	2 25
Gunsmiths .....	3 60	69	2 25
Cabinet-makers .....	3 60	69	2 25
Upholsterers .....	4 32	69	2 25
House-decorators.....	3 36	69	2 25
Lithographers.....	3 10	69	2 25
Blacksmiths.....	3 24	69	2 25

\* Employed seven days per week.

## CANTON OF APPENZELL.

Occupation.	Average wages per week.	House-rent per week.	Living per per week.
Saddlers.....	\$2 52	\$0 32	\$1 40
Coopers.....	2 28	32	1 40
Bakers.....	2 16	32	1 40
Butchers.....	2 40	32	1 40
Joiners.....	2 40	32	1 40
Tailors.....	2 40	32	1 40
Tinkers.....	2 76	32	1 40
Silk-factories, (men).....	3 24	32	1 40
Silk-factories, (women).....	1 92	23	1 12
Ribbon-factories, (men).....	3 96	32	1 40
Ribbon-factories, (women).....	1 92	23	1 12
Yarn-factories, (men).....	3 24	32	1 40
Yarn-factories, (women).....	1 92	23	1 12
Wool-factories, (men).....	3 60	32	1 40
Wool-factories, (women).....	1 68	23	1 12

\* Employed seven days per week.

## CANTON OF BERNE.

*Average rate of wages of the working-classes, with and without board.*

Occupation.	Average wages per week.	Occupation.	Average wages per week.
<b>WITH BOARD AND LODGING.</b>		Cabinet-makers.....	\$3 66
Working watchmakers.....	*\$1 39	Glaziers.....	3 00
Coopers.....	1 19	Plasterers.....	3 42
Brewers.....	4 00	House-decorators.....	3 42
Shoemakers.....	1 40	Smiths.....	3 30
Gardeners.....	† 1 85	Locksmiths.....	3 30
Turners.....	† 1 07	Toolsmiths.....	3 30
Porters.....	1 00	Mechanics.....	4 20
Office-porters.....	2 40	Brass-founders.....	3 42
Bakers.....	2 52	Founders.....	3 96
Butchers.....	† 1 19	Tinmen.....	3 60
Farm-servants.....	1 42	Engravers.....	4 20
Women-servants.....	§ 3 30	Lithographers.....	4 50
<b>WITHOUT BOARD AND LODGING.</b>		Lithographers.....	3 72
Masons.....	3 00	Compositors.....	3 72
Foremen.....	\$4 20 to 4 80	Printers.....	3 60
Stone-cutters.....	3 00	Bookbinders.....	3 10
Foremen.....	Up to 4 80	Goldsmiths.....	4 20
Carpenters.....	3 30	Brush-makers.....	3 11
Foremen.....	Up to 4 80	Tailors.....	3 20
Joiners.....	3 00	Saddlers.....	4 20
		Potters.....	4 20
		Cartwrights.....	3 00
		Photographers, operators.....	8 72
		Photographers, assistants.....	3 12

\* Provide their own tools.

† Work on Sundays.

† Engaged by the month.

§ Per month.

NOTE.—The above artisans often earn more by piecework.

*Table showing the average prices of provisions and fuel in the canton of Berne.*

	Cents.
Bread, rye mixed with wheat.....per Swiss pound = 1.103..	\$0 04
Beef, first quality.....do.....do..	13
Beef, second quality.....do.....do..	12
Veal.....do.....do..	13
Pork.....do.....do..	19
Potatoes.....do.....do..	6
Butter.....do.....do..	20
Suet.....do.....do..	18
Lard.....do.....do..	18
Pine-wood.....per klafter..	5 80
Beech.....do.....do..	9 20
Turf.....per wagon load..	5 00

*Table showing the quality, quantity, and average prices of provisions consumed per week by an ordinary day-laborer's family at Berne, consisting of 8 persons—2 adults and 6 children.*

Bread, 8.823 pounds English per day, at 4 cents per pound .....	\$2 24
Milk, 4½ imperial pints per day .....	67
Coffee, 1.103 pounds English per week .....	20
Coffee made of chiccory, ("sparkaffee,") a small packet per week .....	2
Coffee, essence of .....	3
Flour, 1 pound per week, at 5 cents per pound .....	5
Meat,* 1 pound Swiss, (about once a month,) of lean bacon, at 18 cents .....	4
Potatoes, 10½ imperial quarters per month .....	22
Cabbage, made into sauer-kraut .....	4
Lard .....	20
Salt 3 cents; fruits and vegetables, 10 cents .....	13
<b>Total .....</b>	<b>4 04</b>

*Amount disbursed by the same family for house-rent, fuel, taxes, and various other necessary household expenses during the year.*

Rent for one large room for the whole family, and part use of a kitchen .....	\$30 00
Fuel for cooking-purposes—a bundle of beech wood per day .....	18 25
Fuel to warm the room in winter—one large cart-load of turf .....	5 00
Lighting, during the winter months, a pint of oil per week, at 10 cents .....	2 60
Municipal gas rates .....	40
Blacking, one small box, per month, at 4 cents; soap and matches, 3 cents .....	84
School-books and slates for children attending school, per annum .....	4 00
Breakage, thread, needles, &c., per annum .....	3 00
Soap, washing done at home, (1 Swiss pound,) 9 cents per week .....	4 68
Pig's grease for boots and shoes, 1 Swiss pound, 20 cents per month .....	2 40
<b>Total .....</b>	<b>71 17</b>

*Table showing the annual average expenditure for clothing of an ordinary workingman.*

Coat, price \$6, usually lasts three years .....	\$2 00
Waistcoat, price \$1.40, usually lasts one year .....	1 40
Trowsers, price \$2.80 to \$3 .....	2 90
Shirt, price 85 cents; two required every year .....	1 70
Stockings, cotton, price 40 cents, usually last one year .....	40
Stockings, woolen, price \$1, usually last one year .....	1 00
Boots, price \$2.20, usually last one year, require being twice resoled, extra expense \$1.40 .....	3 60
Shoes, price 80 cents, usually last one year, resoled four times, extra, 68 cents ..	1 48
Neck-ties, price 30 cents, usually last one year .....	30
Felt hat, price \$1.60, usually lasts three years .....	53
Braces, price 30 cents, usually last one year .....	30
Trowsers, summer, price \$1.40, usually last one year .....	1 40
Under-waistcoat, price 69 cents, usually lasts two years .....	34
Pocket-handkerchief, price 16 cents, two required every year .....	32
Jacket, price \$1.80, usually lasts two years .....	90
<b>Total .....</b>	<b>18 57</b>

The lowest computation of the annual cost of clothing for a workingman in this canton is \$14.32 provided he does not wear second-hand clothes.

*Table showing the average annual expenditure for clothing of a woman of the working-class.*

Dress, price \$8, usually worn three years .....	\$2 66
Petticoat, price \$2.20, usually worn two years .....	1 10
Apron, price \$1, two required every year .....	2 00
Stays, price \$1.40, two required every year .....	2 80
Shift, price 61 cents, two required every year .....	1 22
Stockings, cotton, price 16 cents, two required every year .....	32

\* 1 pound Swiss = 1.103 pounds English.

Stockings, woolen, price 50 cents, two required every year.....	1 00
Underclothing, price 42 cents, usually worn one year.....	42
Jacket, price \$1.60, usually worn two years.....	80
Neckerchief, price 60 cents, usually worn one year.....	60
Bonnet, price \$1, usually worn four years.....	25
Gloves, price 30 cents, usually worn two years.....	15
Shawl, price 40 cents, usually worn ten years.....	4
Comb, price 14 cents, usually worn one year.....	14
Shoes, price \$1.80, usually worn one year, but require being twice resoled; extra expense \$1.12.....	2 92
Shoes, price 60 cents, usually last one year, but require being resoled six times, extra expense, 92 cents.....	1 52
Pocket-handkerchief, price 12 cents, two required per year.....	24
Under-waistcoat, usually wears one year.....	42
Hood, price 60 cents, usually worn two years.....	30
Total.....	18 90

*Table showing the average annual cost of clothing for a boy under 14, belonging to the working-class.*

Coat, cotton-warp linen, price, including lining, 90 cents, make, and accessories, 50 cents, one required per annum.....	\$1 40
Waistcoat of the same material, one usually lasts a year.....	70
Trowsers, of the same material, \$1.10 each, three pairs per annum.....	3 30
Shirt, cotton, 50 cents each, two per annum.....	1 00
Stockings, cotton, at 20 cents, two pairs per annum.....	40
Stockings, woolen, at 50 cents per pair, two pairs per annum.....	1 00
Shoes, at \$1 to \$1.40 per pair, resoling them twice a year, 44 cents each time...	2 28
Neck-tie.....	20
Cap, woolen.....	32
Pocket-handkerchief, 8 cents each, two per annum.....	16
Braces, 12 cents per pair, one per annum.....	12
Total.....	10 89

#### CONDITION OF THE WORKING-CLASSES.

There is no establishment in Switzerland where workmen can obtain cheap clothing, at least at all commensurate with the small price of other necessities. This is, no doubt, a singular omission in a country pre-eminently distinguished for its associations organized with a view of ameliorating the condition of the working-classes, and dispensing charity generally. On the other hand, there are to be found in nearly every town and village public fountains and washing apparatus, protected by roofing, where linen can be washed with ease, and at little or no cost.

If it be a matter of importance to the workman to obtain food at moderate rates, it is of no less consequence to him to find cheap lodging, for the necessity of paying rent is one of the severest, if not the heaviest load by which his finances are oppressed.

A society for erecting improved dwellings for the industrial classes was founded at Lausanne in 1860, with a capital of \$40,000. Another more recently, with a capital of \$60,000, at Geneva, where the charge for a single room and kitchen amounts to \$30 a year, and the rent of a kitchen, which can be let separately, is as low as \$2 a month. Again, at Neuchâtel, another society has erected a considerable number of lodging-houses, and proposes to build others for the working-classes. The apartments are grouped in fours, with a common entrance, two apartments being on the ground-floor, and two on the first floor. Each lodger has his own garden, and the rent paid is very moderate.

As in other manufacturing countries, certain occupations are more prejudicial than others to the industrial classes. Domiciliary labor, too, so prevalent throughout the confederation, and which at first sight would appear to have a favorable effect in a sanitary sense on the operative, has not all the advantages it is generally held to possess. It produces the evil effects of too sedentary a life, and also entails constant application to work subjected to no direct control. The manufacture of watches, both in this respect, and as regards the strain on the eyesight, is considered to be one of the most injurious occupations, although the authorities have everywhere taken the best precautionary measures, both to protect the workman, as far as possible, from its attendant evils, and to prevent children from being employed in this trade at too early an age.

In the glass-blowing works, also, men are exposed to a very high temperature, and to long night-watches, both of which are very prejudicial to health, especially in the Valais and Bemeze Jura. In the potteries situated at Horgen, in the canton of Zurich, a particular disease is prevalent, called the "lead" colic. Again, wherever the straw-plaiting establishments most abound—in Fribourg and Ousernone especially—the workman is subject to a disabling affection at the extremity of the fingers, in consequence of his being repeatedly obliged to dip the hands in cold water, and keep them wet. In the northeast of Switzerland, where industry is most developed, the injury to health, resulting from manufactures, is naturally excessive. The only exception is to be found at Schaffhausen, where there are large iron and steel founderies, and where machinery, wagons, arms, and watch-cases, &c., are largely manufactured. In the dyeing-works generally, especially in those where Turkey-red is much used, certain operations necessary in the process of drying require a high degree of heat, which is held to be fatal to the lungs. In the cotton-printing establishments there is not sufficient ventilation to counteract the dangerous exhalations, arising from the coloring-substances in use. Cotton-spinning, moreover, produces a fine dust, which attacks the respiratory organs, and is found very injurious to health in Switzerland; while weavers, who mostly work in cellars or on the ground-floor, are subject to diseases of the lungs, produced by damp.

In Switzerland agriculture is carried on to the greatest perfection that the climate and soil of such a country will allow. By means of trenches and sluices, water is conveyed from the mountains to any required point; extreme care is taken to economize and render available the manure obtained from their herds, and great judgment is shown in the culture of the different kinds of soil. Even apparently sterile and unavailable slopes are made use of, mold being carried up from below and spread upon them in the form of terraces. The use of animal labor in agricultural operations is not extensive, chiefly owing to the rugged surface of the country; and nearly everything is done by hand. The grain-crops are inferior in quantity, but the pasturage is extremely good, and its bright verdure such as to render it a distinguishing feature of the country. The vine is cultivated in several localities, and some of the wines produced are of a very good quality. The cultivation of tobacco is undergoing great development, especially in the northern part of Vaud, which yields a cheap, though rather indifferent produce. The domestic economy of a Swiss country household is very simple; from their land and cattle they can supply nearly the whole of their wants, and the profits of their dairy afford them the small sums of money they require. The quantity of timber at present exported exceeds \$430,000 in value, but this must ultimately have a very bad effect on the country, as it is so far beyond the rate of growth.

In 1861 an association was formed at Berne for the purpose of erecting workmen's dwellings, with a capital of \$60,000. It has constructed houses containing sixty-eight separate tenements, twenty-eight of which consist of only one room, a kitchen and its dependencies, with a garden attached, at a rent of \$30, and the remainder at from \$49 to \$55 each per annum. A second society was started at the capital in the course of the same year on a more extended scale, since its resources represent a fund of \$200,000, although the shares are not all paid up. It has built some forty houses, also divided into tenements, for which an annual rent (in round numbers) of \$40 for each apartment is demanded. In the accounts hitherto given of the provision made for lodging the working-classes, those dwellings only have been mentioned which are constructed for married men and their families settled in particular districts, since this class of workmen, having the first claim on public solicitude, has naturally received the greatest share of public attention. But there are two other classes of operatives, the unmarried and the itinerant workmen, which must not be forgotten, and which, indeed, well deserve to be included among the objects of those philanthropic exertions which we have just been considering. It is to be feared that, as a rule, both fare ill in Switzerland as regards lodging, their hardships in this respect being mainly caused by the circumstance that they have no other resources to look to but those which flow from their daily wages. Yet it cannot be said that charity is not largely extended to these less fortunate members of the industrial classes. The itinerant workmen frequently find gratuitous accommodation in some public institution, such as the "Hôpital des Bourgeois" at Berne and the old hospital at Stanz. Throughout the communes, in the canton of Neuchâtel, beds are at his disposal free of charge. At the railway junction at Olten, he is provided with food as well as with a bed for one night. Many other instances of similar hospitality might be cited. All operatives are, moreover, very considerate to each other, and are sure to give a hearty welcome to their itinerant fellow-laborers, in the fullest sense of the term.

The International Workingmen's Association is particularly active at Lausanne, and has accomplished important practical results, such as finding labor, organizing clubs, banks, &c., for its members. Omission must not be made of the society of "Grütli,"



which, though of a more political character than the foregoing, is exclusively Swiss, and while constantly discussing the problem of "capital vs. labor," (for the reason that a large majority of its members are laboring men,) and whose political character is closely allied to the question of labor, exercises, by its principles and popularity, a wholesome influence over the laboring classes.

This association has founded many important institutions, such as societies of mutual support, savings-banks, cheap eating-houses, &c., and erected various resorts for instruction and amusement.

There are also other societies, purely religious, both Protestant and Roman Catholic, exercising special supervision over the education and well-being of the operative class. Similar results have been experienced in other countries, and led to the creation of the International Congresses of Brussels, Frankfort, and London. The Genevese "Society of Public Utility" early recognized the importance of the suggestions proposed at these congresses, and with a view to avert the evils of localization, and for the general dissemination of knowledge, have founded a library of 2,000 volumes on social questions, comprising many books not found in other collections. All these various philanthropic efforts to ameliorate the condition of the Swiss population at large, and of the operative in particular, meet with valuable aid from the native employers. A purely democratic spirit prevails, in this regard, among employers and employed. The employer would not be considered by his subordinates, or even by himself, as entirely capable to conduct the affairs of his establishment, had he not in his younger days ascended, step by step, the ladder which brought him up from a room-sweeper to the level of the most skilled in the trade. In Glarus, which may be considered a model canton as regards the relations between proprietor and employé, and where a third of the population consists of operatives, the communes encourage every new enterprise, superintend the schools and local libraries, and, in critical periods, find labor, provide soup-kitchens, and buy provisions for the purpose of reselling them at cost price to their distressed workmen. At Olten, in the canton of Soleure, where the company of the Great Central Railway gives employment to 700 workmen, we find perhaps the most striking example of the prosperous condition of the operative in Switzerland. While the rate of wages is higher in the company's works than in the factories situated in other cantons, the hours of labor are limited to from ten and a half to eleven hours. In case of sickness the operative is always certain of being kindly cared for; or if high prices prevail, prompt measures are taken to relieve his distress. Cases of ill behavior have never been known to occur at Olten. The operatives are much attached to each other, and look upon the director of the works in the light of a father rather than a master.

The laws of Switzerland oblige every Swiss to attend the "primary" schools for a certain number of years; and it may be said here, the government has now under consideration, also, a law regulating the hours of labor.

So wide-spread, however, is education in Switzerland that every commune has its schools, and absence from these institutions is exceedingly rare. Generally speaking, the laws oblige them to commence attendance at the age of six or seven, and they are bound not to leave the primary school until they are fifteen or sixteen. The law which requires that children should attend the primary schools virtually imposes an obligation on the state, or, more correctly, on the communes, of endowing numerous schools throughout the country. These institutions are of a first-rate character, both as regards system and management. It is generally allowed that the primary schools offer a solid basis to the education of the people. The industrial classes here as elsewhere are better educated than the agricultural population; but on the whole few countries can boast of so general a diffusion of knowledge throughout the masses as is met with in Switzerland. What are called "industrial" schools are also very considerable in number. There the subjects of study include drawing, modeling, calculation, (especially in its application to industry and commerce,) German, French, the elements of geometry, chemistry, and physics. There are many such institutions in the cantons of Geneva, Vaud, Neuchâtel, Berne, Lucerne, Zurich, Tessin, St. Gall, &c. At Lugano gratuitous instruction is given in the application of chemistry to art and industry. Various other institutions of a like nature are found in different parts of Switzerland, testifying to the general interest taken in the education of the artisan and industrial classes. Lectures on scientific, historical, and social subjects are given in the different cantons with beneficial results. The Swiss operative undergoes his apprenticeship either under parental supervision at home or more frequently under the eye of his employer. Whenever any new branch of industry is introduced a number of apprentice schools are immediately instituted. Among other numerous examples, we find in the canton of Tessin a school where silk-weaving is taught. At Fribourg and Geneva there are institutions where apprentices receive instruction in plaiting straw, &c. But clock and watch making, demanding prolonged and difficult studies, is perhaps the branch of trade, above all others, in which the practical education of the apprentice is carried to the highest pitch of perfection. Schools have been founded for this purpose at Geneva, Chaux de Fond, and Locle, the establishments at the two former places being municipal institutions, and the latter exclusively for the poor. The watch and clock

institutions at Chaux de Fond was founded as recently as 1864. Instruction is given to pupils either devoting themselves exclusively to watch and clock making or to workmen desiring to receive finishing lessons in any particular handicraft. They are, however, obliged to satisfy the examiners that their previous studies in other schools have been sufficiently complete. Prizes are given and certificates of general capacity on leaving the establishment.

The following from another source affords information of an interesting character in regard to the condition of the working-people of Switzerland :

Perhaps the Swiss artisan is the most fortunately situated of all the continental workmen. This is the result of various causes. "In most countries," observes Mr. A. G. G. Bonar, "the laboring classes are, as a rule, wholly dependent for their means of existence upon that one department of labor in which circumstances have individually placed them, and are, therefore, exposed to the disastrous results of whatever fluctuations may affect it. In Switzerland, this is happily so far from being the case that it may almost be said to constitute the exception. The peasant, when not actively engaged in agricultural pursuits, finds useful and profitable occupation in a hundred different ways, from felling timber on the mountains to making portions of the complicated and delicate works of watches. The artisan, likewise in his leisure moments, or when unable to find work, cultivates the small plots of ground which he often owns, while his wife, and even his children, after school-hours, contribute more or less directly to the support of the family." The Swiss is never ashamed of work, and if it be not obtainable in his own country he will seek it in others. Combined with this love of labor is to be found an habitual thriftiness which enables the Swiss workman, although in receipt of lower wages than are to be obtained in many other countries, to save money, and even enjoy a state of comparative ease. Were the English artisans, with their high rates of wages and abundant means of employment, to display anything like the economical propensities of their Swiss brethren, the whole social condition of the industrial classes in England would become completely revolutionized. That low wages necessarily mean poverty and suffering is refuted by the example of the Swiss. With wages frequently lower than those of a Dorsetshire peasant, he contrives, by the smallness of his wants, his indomitable thrift, and dislike of idleness, to acquire a more independent position than is possessed by many of our best-remunerated workmen.

In the history of the Swiss working-classes we have a significant view of the value of education, if not carried too far. There are comparatively few Swiss who cannot read or write, and not unfrequently we find the artisan rising to the post of manager, and from thence to that of partner or employer, by reason of the educational advantages possessed by him. From his earliest childhood principles of the strictest economy are instilled in his mind, and the habit of saving encouraged by every possible means. He understands the industrial value of education, and, consequently, never omits an opportunity of extending his knowledge. While our artisans are wasting their time and money at a public house, the Swiss workman is busy with hand or brain preparing for the contingencies of the future. Compared with the wages obtainable in England the average earnings of the Swiss workmen must appear very low. In the canton of Zurich, for instance, they range from 17 cents to 96 cents per day, the number of working-hours being from 12 to 14. In the various cotton and silk factories the rate of wages is far below those obtainable in Lancashire and Warwickshire, although the quality of the labor is scarcely a whit inferior. In the canton of Basle unskilled hands in the silk-trade obtain about \$1.56 per week, while first-class dyers average \$4.84. Like the Germans, the Swiss have successfully adopted the principles of co-operation, extending their application to productive purposes, but the liberality with which most employers treat their workmen—a circumstance which renders strikes almost unknown in Switzerland—tends to retard any extensive development of the latter class of co-operative associations.

Owing to the excellent system of education among the Swiss, and their frugal and industrious habits, the workingman has many advantages over his fellow-competitors in other lands. To provide the Swiss workingman with the means of spending his leisure hours pleasantly, and perhaps usefully, is the self-imposed task of numerous societies, not a few of which are founded by workmen themselves. Under their auspices local circulating-libraries have been formed in many parts of the country, even in some of the most secluded rural communes, the works of which they are composed being carefully selected in order that they may suit the taste and position of those for whom they are more particularly intended. In 1866 the canton of Geneva already possessed forty-three of these libraries, with 39,000 volumes, and that of Lucerne forty-one. The number in the remaining cantons has not yet been ascertained. There are also numerous other public libraries, containing works of a much higher class, as well as museums in all the principal towns. Almanacs, reviews, and

newspapers are likewise published for the special use of the working classes, and many of the daily papers give out on Sundays an extra sheet with the object of affording them additional reading matter. Lectures on the social and political questions of the day and other attractive subjects are frequently given, not only in the great centers of population, but also in the remote communes, where, in the absence of regular lecturers, the village clergyman or schoolmaster, and sometimes even ordinary workmen, undertake this task. There are innumerable workingmen's associations which have some regular place of meeting, where books, periodicals, games, and refreshments are provided for the members, whose time is chiefly engaged in debating, getting up dramatic performances, and acquiring a knowledge of modern languages, book-keeping, drawing, arithmetic, history, &c. Much attention is also devoted to music, both vocal and instrumental, as a means of innocent recreation, singing being taught in all the primary schools. There is hardly a village which does not possess one or more choral societies, and in many cases a brass band. The rural districts of the canton of Lucerne may be cited as an example of the general taste for music, the beneficial effects of which cannot be too highly appreciated. In this little strip of territory there are no less than sixteen principal choral societies, seventeen musical societies, thirteen theatrical societies, and twenty-five brass bands. Lenzberg, a town of 2,000 inhabitants, could some years back, boast of possessing two hundred pianos. In obscure villages dramatic performances are sometimes given by the peasants themselves. In some parts of Switzerland pageants are periodically got up at considerable expense to commemorate some event of extraordinary interest in the local annals. Rifle matches and athletic sports are common throughout the country. All classes without distinction take part in these pastimes.

The following is an extract from a letter to the Boston Daily Advertiser, dated at Zurich :

#### THE SWISS WOMEN.

There is sad enough need of the elevation of women even in Switzerland. One hundred women climb each day to the splendid buildings which overlook the city of Zurich, the first fountain of learning in the republic; one thousand women toil from sunrise till late evening in the narrow lanes below, dragging heavy hand-carts, staggering under large burdens balanced upon their heads, sawing wood, or gathering the refuse from the streets with basket and shovel; in short, performing the most menial service that the lowest class of male laborers are condemned to do in America. I have often seen two slender women sawing oak and ash wood in the street while a stout fellow stood by leisurely splitting the same sticks. One poor old creature the other day sat upon the curb-stone holding her saw reversed between her knees, and in utter weakness was rubbing the stick of wood upon it to saw it in two.

## LABOR IN ITALY.

In this ancient and renowned country there are few if any manufactures which enter into competition with similar branches in the United States. The following statement shows the kind and value of the products of that kingdom which found a market in the United States in the year indicated :

*Statement showing the quantities and values of imports into the United States from Italy during the fiscal year ended June 30, 1874.*

Articles.	Direct.		Indirect.	
	Quantity.	Value.	Quantity.	Value.
<b>FREE OF DUTY.</b>				
Argols.....pounds.	742, 412	\$132, 356	217, 584	\$35, 264
Chemicals, dyes, &c.....		16, 173		1, 162
Gums.....pounds.	42, 193	5, 498		
Hides and skins.....		58, 557		
Oils:				
Fixed.....gallons.	9, 650	5, 170		
Volatile or essential.....do.	35, 335	169, 573	6, 091	32, 220
Paintings, &c., of American artists.....		141, 334		14, 464
Bags of cotton, &c.....pounds.	30, 382, 421	1, 473, 267		
Seeds.....		20, 280		
Silk, raw.....pounds.			2, 524	21, 223
Sulphur, crude.....tons.	40, 897	1, 241, 740		
Other articles, (principally tropical fruits, including olives).....		2, 373, 461		211, 186
<b>Total free of duty.....</b>		<b>5, 637, 409</b>		<b>315, 538</b>
<b>DUTIABLE.</b>				
Books, &c.....		3, 603		3, 220
Breadstuffs, pease, &c.....bushels.	1, 482	2, 065	589	234
Chemicals, drugs, &c.....		580, 377		45, 855
Fancy goods.....		10, 349		14, 234
Fruits of all kinds.....		847, 990		114, 420
Hair, human.....		1, 600		18, 598
Hemp, raw.....tons.	244	50, 450	181	40, 461
Jewelry.....		1, 137		26, 999
Leather of all kinds.....pounds.	4, 940	3, 293		
Gloves.....dozen pairs.			57, 838	197, 754
Marble and manufactures of.....		538, 068		
Oils:				
Olive, salad.....gallons.	24, 637	38, 933	4, 336	5, 066
Olive, not salad.....do.	29, 260	20, 982	490	407
Volatile or essential.....do.	68, 570	213, 000	13, 327	42, 985
Paintings.....		150, 679		25, 865
Provisions.....		11, 275		4, 530
Salt.....pounds.	53, 541, 474	42, 613		
Straw, manufactures of.....		178, 857		583, 197
Wine:				
In casks.....gallons.	66, 556	23, 435	5, 978	4, 702
In bottles.....dozen.	3, 053	7, 375	38	119
Wood, manufactures of.....		22, 346		7, 259
Wool, raw.....pounds.	46, 891	5, 837	52, 772	11, 876
All other articles.....		107, 601		42, 424
<b>Total dutiable.....</b>		<b>2, 861, 885</b>		<b>1, 190, 834</b>
<b>Total free of duty.....</b>		<b>5, 637, 409</b>		<b>315, 538</b>
<b>Total imports.....</b>		<b>8, 499, 294</b>		<b>1, 506, 372</b>
<b>The indirect imports came through the ports of—</b>				
Belgium.....				3, 309
France.....				593, 214
Germany.....				14, 502
England.....				627, 536
Scotland.....				67, 483
Ireland.....				22
Quebec.....				306
<b>Total.....</b>				<b>1, 506, 375</b>

## EMIGRATION FROM ITALY.

The people of Italy, like those of the other Latin nations, are, as a rule, disinclined to emigrate. The following shows the total immigration into the United States from Italy during the past fifty-four years, aggregating but 47,409 in more than half a century. Nor were these all immigrants, as the figures in the table for the years previous to 1870 denote *alien passengers*, many of whom afterward returned to their native land.

*Emigration from Italy by decades, from 1820 to 1870, and by years since 1870.*

Years.	Number.	Years.	Number.
1820 to 1830 .....	389	1872 .....	7,229
1831 to 1840 .....	2,211	1873 .....	7,473
1841 to 1850 .....	1,590	1874 .....	5,767
1851 to 1860 .....	7,012		
1861 to 1870 .....	12,781	Total in 54 years .....	47,409
1871 .....	2,927		

## RATE OF WAGES.

The following statements, in regard to the cost of labor in Italy previous to 1872, are taken from an official report on the state of the leading branches of industry, which was made in the year 1865:

*Iron-mines.*—Number of mines worked, 44; number of persons employed, 2,212; adults, 1,888; children, 324.

*Average daily wages in iron-mines.*

Location.	Adults.	Children.
	<i>l.</i> <i>s.</i>	<i>l.</i>
Piedmont .....	1 50	.....
Lombardy .....	1 33	70
Tuscany, (adults and children) .....	1 61	.....
Calabria .....	1 25	85

*Copper-mines.*—Number of mines worked, 34; number of persons employed, 2,412.

*Daily wages.*

Location.	Adults.	Children.
	<i>l.</i> <i>s.</i>	<i>l.</i>
Piedmont .....	1 73	85
Liguria .....	1 40	80
Lombardy .....	1 58	.....
Venetia .....	1 2	73
Emilia .....	1 70	.....
Tuscany, (adults and children) .....	1 76	.....

*Galena-mines.*—Number of mines worked, 13; number of persons employed, 4,105; adults, 3,417; children, 426.

*Daily wages.*

Location.	Adults.	Children.
	<i>l.</i> <i>s.</i>	<i>l.</i>
Piedmont .....	1 67	85
Lombardy .....	1 46	.....
Venetia .....	1 30	.....
Tuscany, (adults and children together) .....	1 32	.....
Sardinia .....	2 9	.....

**Zinc.**—Number of mines worked, 1 in Venetia; number of persons employed, 23 adults. Average daily wages, 1 franc 30 centimes.

**Gold.**—Number of mines worked, 14, in Piedmont; number of persons employed, 635 adults and 7 children. Daily wages, (average,) adults, 1 franc 80 centimes; children, 91 centimes.

**Quicksilver.**—Number of mines worked, 2; number of persons employed, 288; adults, 274; children, 10. Average daily wages: adults, Venetia, 1 franc; Tuscany, adults and children, 1 franc 80 centimes.

**Nickel.**—Number of mines, 2, in Piedmont; number of persons employed, 24, adults. Average daily wages, 1 franc 70 centimes.

**Iron pyrites.**—Number of mines, 2, in Piedmont; number of persons employed, 36 adults. Average daily wages, 1 franc 76 centimes.

**Manganese.**—Number of mines, 4; number of persons employed, 213; adults, 188; children, 25. Average daily wages, Piedmont, adults, 1 franc 90 centimes; Liguria, adults, 1 franc 43 centimes; children, 94 centimes.

**Anthracite.**—Number of mines, 2; number of persons employed, 4 adults. Average daily wages, 1 franc 38 centimes.

**Lignite.**—Number of mines, 20; number of persons employed, 750; adults, 579, and children, 3, (sic.) Average daily wages: Piedmont, adults, 2 francs. Liguria, 1 franc 79 centimes; children, 1 franc 15 centimes. Lombardy, adults, 1 franc 37 centimes. Venetia, adults, 1 franc 32 centimes; children, 75 centimes. Emilia and Marches, adults, 1 franc 50 centimes. Tuscany and Umbria, adults and children, 1 franc 76 centimes.

**Sulphur.**—Number of mines, 379; number of persons employed, 22,935; adults, 13,678; children, 9,257. Average daily wages: Emilia, adults, 2 francs 61 centimes; children, 80 centimes. Marches, adults, 2 francs 48 centimes; children, 1 franc 40 centimes. Sicily, adults and children, 1 franc 74 centimes.

**Gas-works.**—Number of persons employed, 1,117. Average rate of wages, 2 francs 17 centimes.

**Petroleum-works.**—Twenty-one men. Wages from 1 franc 25 centimes to 2 francs.

**Asphalt-works.**—Sixty-three men and boys. Wages from 1 franc 57 centimes to 3 francs 20 centimes.

**Chemical-works.**—Four hundred and twenty-six persons. Wages varying from 44 centimes to 4 francs.

**Coke-burners.**—Thirty-eight; their highest rates of wages being from 50 centimes to 5 francs.

**Bell-founders.**—Seventeen. Average wages from 1 franc 26 centimes to 2 francs 35 centimes.

**Porcelain and earthenware.**—Number of persons employed, 1,493. Average rates of wages for skilled workmen, 2 francs 15 centimes; for adult laborers, 1 franc 70 centimes; for children, 58 centimes.

**Salt-works.**—Average wages from 1 franc 3 centimes to 2 francs 75 centimes.

Some useful data are contained in an interesting account of the progress and present state of the woolen manufacture in Italy, which was published in 1868, by Mr. Alexander Rossi, a senator of the kingdom and the owner of extensive mills at Schio, in the province of Vicenza. The total number of persons employed was estimated at about 25,000, and the average rates of wages which they received were as follows:

For men and children, from 14 cents to 25 cents per day.

Foremen: Spinners, from 40 to 70 cents; weavers, from 45 to 60 cents; others from 24 to 45 cents.

These rates are said to be from 20 to 25 per cent. lower than in France, Belgium, or England.

From a tabular statement, giving in detail the rates of wages paid for different kinds of work in the woolen manufacture in Italy in 1868, the following are selected:

Occupation.	Per day.	Occupation.	Per day.
Sorters, (women).....	\$0 17	Finishers, (women) .....	\$0 17
Rinsers .....	34	Pressers .....	36
Carders .....	35	Seamstresses .....	25
Spinners .....	62	Menders, (women) .....	20
Scourers .....	50	Carpenters .....	40
Warpers, (women) .....	20	Smiths .....	50
Burlers, (women) .....	18	Stretchers and shearers .....	30
Weavers .....	52	Laborers .....	24
Fullers .....	40		

The lower price of labor is a set-off in favor of the Italian manufacturer against the higher price which he has to pay for machinery. At the same time Mr. Rossi contends that, in spite of the difference of wages, Italian operatives are really not in a worse condition than those of Belgium. House-rent in manufacturing districts is 50 per cent. lower in Italy than in Belgium, and food is also cheaper.

The frugal habits of the Italian operative, and the mildness of the climate in which he lives, tend to diminish his wants.

Two-thirds of the persons employed in manufactures are taken from the agricultural class. They live in houses, of which they are sometimes the owners, in the country, frequently upon the mountains, and their habits are those of agriculturists. They either leave their homes for the mill in the morning, and return in the evening, or, if the distance is too great, they go on Monday and return on Saturday. The amount of their house-rent cannot be calculated; but at any rate it is not a heavy burden. The rest of the operatives, who live in towns, are crowded together in small and often unhealthy habitations, for which they pay a correspondingly low rent, varying from \$10 to \$24 a year for two or three persons, and more in proportion for a larger number.

The food of the poorer classes is said to be exceedingly bad. By the exertions of benevolent persons, however, economical kitchens have lately been established for supplying wholesome and well-cooked food at moderate charges.

The general condition of the habitations of working-people is described by those who have examined them, as being most deplorable; wet, filthy, full of vermin, and confined. A company has been formed for the construction or purchase of substantial houses to be let out to workmen at moderate rents. Two large houses for that purpose had been built in August, 1869.

#### NAPLES.

The following statistics of the working population of Naples were published by the municipal administration of that city in 1868:

Farmers, 222 males; daily wages from 26 to 80 cents.  
 Employed on railways, 231 males; wages from 30 to 93 cents.  
 Workmen in iron-foundries, 2,140; wages from 32 cents to \$1.  
 Workmen employed in soap-manufacture, 43; wages from 17 to 55 cents.  
 Pipe-makers, 30 men; wages from 17 to 26 cents.  
 Potters, 313 men; wages from 24 to 54 cents.  
 Shoe-makers, 241 men, and 55 women; men's wages from 34 to 60 cents; women's wages from 10 to 20 cents.  
 Dyers, 117 men; wages from 20 to 50 cents.  
 Goldsmiths, 168 men; wages from 40 cents to \$1.20.  
 Iron-bedstead and spring-mattress makers, 67 men; wages from 20 to 50 cents.  
 Hatters, 100 men, and 28 women; wages for men 30 cents to \$1; for women, from 10 to 20 cents.  
 Coppersmiths, 46 men; wages from 20 to 40 cents.  
 Carpenters, ordinary, 38 men; wages from 17 to 42 cents.  
 Carpenters employed in coach-building, 66 men; wages from 26 to 52 cents.  
 Carpenters employed in furniture-making, 387 men; wages from 26 to 70 cents.  
 Men employed in breweries, 31; wages from 30 to 80 cents.  
 Glovers, 80 men and 313 women; men's wages from 26 to 50 cents.  
 Lace-makers, 34 men and 58 women; men's wages from 37 to 60 cents.  
 Tailors, 243 men and 27 women; men's wages from 40 to 72 cents.  
 Saddlers, 17 men; wages from 30 to 80 cents.  
 Linseed-oil makers, 41 men; wages from 20 to 40 cents.  
 Men employed in the preparation of white lead, 9; wages from 20 to 40 cents.  
 Men employed in glass-works, 28.  
 Men employed in stearine manufactories, 10; wages from 17 to 40 cents.  
 Persons working in wax-manufactories, 54 men and 6 women.  
 Printers, 341 men and 18 women; men's wages from 40 to 80 cents; women's wages from 10 to 20 cents.  
 Pianoforte-makers, 66 men; wages from 34 to 80 cents.  
 Gilders, 53 men; wages from 40 cents to \$1.  
 Type-founders, 8 men; wages from 30 to 60 cents.  
 Gas-fitters, 5 men; wages from 30 cents to \$1.  
 Coral-workers, 195 men; wages from 34 cents to \$1.60.  
 Employed in the tobacco-manufactory, 587 men and 1,239 women; men's wages from 68 to 99 cents; women's wages from 14 to 50 cents.  
 Chocolate-makers, 5 men; wages from 24 to 66 cents.  
 Paste-makers, 24 men; wages from 24 to 40 cents.  
 Lucifer-match makers, 8 men and 10 women; men's wages from 17 to 34 cents; women's wages from 7 to 17 cents.

Men employed in tallow-works, 5; wages from 17 to 40 cents.

Men employed in lime-works, 12; wages from 20 to 60 cents.

Employed in the manufacture of chemical products, 18 men and 6 women.

Workers in tortoise-shell, 5 men.

Seven thousand eight hundred and sixty-nine artisans that are enumerated—6,098 males and 1,771 females—out of a total estimated population of about 600,000. These statistics, however, cannot be considered as complete.

### RATES OF WAGES IN 1872.

*Statement of wages paid at Milan, Italy, in 1872.*

[Furnished by H. W. Trimble, esq., United States consular agent.]

Occupations.	Hours per day.	Average wages per week of 6 days, first-class workmen.	Average wages per week of 6 days, inferior workmen.	Boys.
Blacksmiths .....	11	\$3 42	.....	\$0 91
Carpenters .....	.....	2 85	.....	1 42
Masons .....	10	2 85	\$2 18	1 42
Painters .....	.....	3 42	.....	91
Plasterers .....	.....	3 42	.....	91
Shoe-makers .....	11	2 85	.....	.....
Tanners .....	.....	5 13	3 42	.....
Stone-cutters .....	.....	3 70	.....	1 71
Tailors .....	.....	3 42	.....	.....
Glove-makers, cutters .....	.....	5 70	.....	.....
Factory operatives .....	10	3 42	2 18	.....
<b>WOMEN.</b>				
Shoe-binders .....	11	1 71	.....	.....
Glove-makers, sewers .....	.....	1 14	.....	.....
Factory-operatives .....	10	1 71	1 14	.....
Silk-workers .....	11	91	.....	.....
House-servants .....	.....	2 85	.....	.....

\* Per month.

### MECHANICAL AND FARM LABOR.

The following statements showing the rates of wages paid in the consular districts indicated, for mechanical and farm labor in the year 1873, were furnished by the consuls of the respective districts.

*Statement of the rates of daily wages paid for mechanical labor in the following-named cities of Italy in the year 1873.*

Skilled workmen.	Venice, without board.	Genoa, without board.	Brindisi, without board.	Messina, without board.	Palermo, with board.
Blacksmiths .....	\$0 80	\$0 75	\$0 68	\$0 80	\$0 40
Bricklayers or masons .....	80	60	34	90	40
Cabinet-makers .....	\$0 80 to 1 00	70	76½	90	50
Carpenters .....	80	60	85	1 00	50
Coopers .....	60	70	85	80	60
Miners .....	40 to 60	60	51	70	40
Machinists .....	80 to 1 00	80	1 02	1 20	60
Painters .....	60	75	51	1 00	60
Plasterers .....	50 to 60	60	51	90	60
Shoe-makers .....	40 to 60	60	50½	85	50
Stone-cutters .....	40 to 60	80	34	65	40
Tailors .....	40 to 60	80	62	1 20	60
Tanners .....	60	60	50½	70	60
Turnsmiths .....	40 to 60	70	68	60	50
Wheelwrights .....	40 to 60	60	68	60	60
<b>Price of board—</b>					
For workmen, per week, October, 1873 .....	2 60 to 3 50	1 80	.....	2 10	.....
For workwomen, per week, October, 1873 .....	2 15 to 2 50	1 10	.....	1 60	.....



*Rates of wages paid for farm-labor in the following-named places in Italy in the year 1873.*

Occupation.	Venice.		Genoa.			Brindisi.		Messina.			Paler- mo.*
	Daily wages, with- out board.	Monthly wages, with board.	Daily wages, with board.	Daily wages, with- out board.	Monthly wages, with board.	Daily wages, with- out board.	Monthly wages, with board.	Daily wages, with board.	Daily wages, with- out board.	Monthly wages, with board.	Daily wages, with- out board.
<b>FARM-LABORERS.</b>											
Experienced hands—											
In summer .....	\$0 60	.....	\$0 40	\$0 50	\$0 00	\$0 42½	.....	\$0 30	\$0 50	\$0 00	\$0 40
In winter .....	50	.....	20	30	5 00	25½	.....	50	70	15 00	.....
Ordinary hands—											
In summer .....	40	.....	32	43	6 40	42½	.....	20	30	6 00	.....
In winter .....	30	.....	20	30	4 00	25½	.....	15	48	7 50	.....
Common laborers at other than farm- work .....	40	.....	.....	.....	.....	51	.....	15	38	4 50	28
Female servants .....	.....	\$1 to \$2	10	18	2 40	.....	\$1 70 to \$3 40	15	30	4 50	28

\* Board is never given except during vintage, when they are allowed wine *ad libitum*.

### PRICES OF PROVISIONS, GROCERIES, ETC.

The following statements, showing the prices of provisions and other necessities of life, were furnished by the consuls of the United States at the several places indicated :

*Prices of provisions, groceries, and other leading articles of consumption, also of house-rent and board, in the following-named cities of Italy, in the year 1873.*

Articles.	Milan.	Genoa.	Brindisi.	Venice.	Palermo.	Messina.
<b>PROVISIONS.</b>						
Flour, wheat:						
Superfine ..... per pound ..	\$0 05	\$0 06	\$0 05½	\$11 25	\$0 10	\$10 00
Extra family ..... do .....	07	05½	06	12 50	12	12 30
Beef:				14 50	12½	18
Fresh, roasting-pieces ..... do .....	12	15	24	18½	30	27
Fresh, soup-pieces ..... do .....	12	15	20	17	25	18
Fresh, rump or sirloin steaks ..... do .....	25	15	24	19	30	27
Corned ..... do .....	.....	.....	20	10	.....	.....
Veal:						
Fore-quarters ..... do .....	17	28	25	20	.....	27
Hind-quarters ..... do .....	17	28	25	22	.....	27
Cutlets ..... do .....	†25	28	25	22	.....	27
Mutton:						
Fore-quarters ..... do .....	10	15	10	13½	20	14
Leg ..... do .....	18	17	10	15	20	14
Chops ..... do .....	17	17	10	13½	20	13
Pork:						
Fresh ..... do .....	17	18	10	15	20	12
Corned or salted ..... do .....	25	35	.....	.....	.....	.....
Bacon ..... do .....	25	35	17	13	.....	24
Hams, smoked ..... do .....	34	45	25	36	35	30
Shoulders ..... do .....	34	.....	25	14	25	20
Sausages ..... do .....	0 25 to 0 34	35	34	36	25	15
Lard ..... do .....	22	28	25	18	40	22
Cod-fish, dry ..... do .....	10	10	08	.....	16	08
Butter ..... do .....	25	40	34	0 24 to 0 40	60	30
Cheese ..... do .....	22	30	0 17 to 0 34	0 21 to 0 36	28	22

\* Per barrel.

† Without bone.

*Prices of provisions, &c., in the following-named cities of Italy in 1873—Continued.*

Articles.	Milan.	Genoa.	Brindisi.	Venice.	Palermo.	Messina.
Potatoes.....do.....	\$0 02	\$0 02	.....	\$0 02	\$0 04	.....
Rice.....do.....	03	06	\$0 05	04½	10	\$0 07
Beans.....do.....	09½	03	.....	{ 0 03 to 0 08 0 03 0 20 to 0 30 }	05	.....
Milk.....per quart.....	03	05	.....	03	20	17
Eggs.....per dozen.....	14	22	17	{ 0 20 to 0 30 }	36	20
GROCERIES, ETC.						
Tea, Oolong or other good black.....per pound.....	1 42	1 60	.....	{ 1 00 to 3 00 0 30 0 40 0 36 0 64 }	1 50	1 20
Coffee, Rio:						
Green.....do.....	22	40	34	{ 0 40 to 0 36 0 64 }	30	34
Roasted.....do.....	37	.....	42	{ 0 64 to 1 00 to 12 00 }	40	45
Sugar:						
Good brown.....do.....	10	12½	10	65½	15	12
Yellow C.....do.....	12	13½	12	.....	118	.....
Coffee B.....do.....	14	14	14	.....	.....	.....
Soap, common.....do.....	12	14	10	12½	09	11
Starch.....do.....	10	25	75	07½	15	13
Fuel:						
Coal.....per ton.....	.....	10 00	13 60	{ 11 00 to 12 00 }	10 00	.....
Wood, hard.....per 220 pounds.....	78	.....	.....	.....	11 20	.....
Charcoal.....per bushel.....	20	.....	.....	.....	.....	.....
Oil, coal.....per gallon.....	48	65	57	.....	75	.....
DOMESTIC DRY-GOODS, ETC.						
Shirts:						
Brown, 4-4, standard quality.....per yard.....	¶17	20	20	12	.....	14
Bleached, 4-4, standard quality.....do.....	¶20	25	22	13	.....	16
Sheets:						
Brown, 9-8, standard quality.....do.....	(¶) 17	22	24	14	.....	.....
Bleached, 9-8, standard quality.....do.....	¶18½	25	25	15	.....	.....
Cotton flannel, medium quality.....do.....	(¶) 17	22	.....	.....	.....	21
Tickings, good quality.....do.....	(¶) 17	22	34	75	.....	30
Prints, Merrimac.....do.....	¶12½	.....	13½	15	.....	16
Mousseline de laine.....do.....	(¶) 17	35	22	30	.....	20
Satinets, medium quality.....do.....	(¶) 17	.....	.....	.....	.....	24
Boots and shoes:						
Boots, men's heavy.....per pair.....	2 40	2 50	3 40	3 60	.....	3 20
Shoes.....do.....	.....	.....	.....	.....	1 00	.....
HOUSE-RENT.						
Four-roomed tenements.....per year.....	100 00	84 00	**8 50	**6 00	50 00	**5 10
Six-roomed tenements.....do.....	150 00	120 00	**11 90	**10 00	75 00	**6 70
BOARD.						
For men, (mechanics or other workmen).....per week.....	(H)	2 00	3 40	{ 2 60 to 3 50 2 15 2 50 }	(H)	.....
For women employed in factories.....do.....	(H)	1 50	3 40	{ 2 60 to 3 50 2 15 2 50 }	(H)	.....

† White.

§ Soft.

|| Olive.

¶ These articles are mostly home-made, very coarse, cheap but of poor quality.

\*\* Per month.

†† The American system of boarding is not practiced; everybody keeps house.

## EXPENDITURES OF WORKINGMEN'S FAMILIES.

*Average weekly expenditures of families living in Milan, Venice, Messina, Brindisi, and Sarnepiedara, Italy, in 1873.*

Articles.	Milan.	Venice.	Messina.	Brindisi.	Sarnepiedara.
	2 adults and 3 children.			2 adults and 5 children.	2 adults and 2 children.
Flour and bread.....		\$0 70	\$1 70	\$1 28	\$0 90
Flour, bread, and rice.....	\$1 53				
Meats.....	97	1 10	1 00	1 43	10
Lard.....		08	15	09	12
Butter.....		30		09	
Butter, cheese, and pork.....	51				
Cheese.....		15	10	25	06
Sugar.....		15	18	17	08
Macaroni.....			40		
Milk.....		28		17	18
Coffee.....		16		09	12
Coffee and milk.....			30		
Fish and legumes.....			70		
Fish.....		14		43	12
Soap, starch, salt, pepper, vinegar, &c.....		90	25	19	10
Eggs.....		10	10	25	06
Potatoes and other vegetables.....		14	15	60	25
Fruits, (green and dried).....			30	17	
Fuel.....	43	28		43	28
Oil or other light.....	25	12	00	34	12
Other articles.....	17	15	20	51	14
Spirits, wine, beer, and tobacco.....		80	09	1 19	36
House-rent.....	87	1 10	1 50	2 73	36
For educational, religious, and benevolent objects.....		60	40	1 70	
Total weekly expenses ..	4 72	6 55	8 63	12 00	3 35
Total for 52 weeks.....	245 44	340 60	448 76	624 00	174 20
Clothing per year.....		40 00	32 00	51 00	35 00
Taxes per year.....				2 75	
Total annual expenses...	245 44	380 60	480 76	677 75	209 20
Total weekly earnings...	5 10	7 50	8 85		4 00
Total for 52 weeks.....	265 20	390 00	460 20		208 00

## COST AND CONDITION OF LABOR IN ITALY.

## MILAN.

The following report on the cost and condition of labor in Milan was prepared by Mr. Trimble, United States consular agent, and transmitted to the author September 24, 1872:

Since 1860 wages have increased on the whole about 30 per cent.; the general strikes in August last will probably result in an additional increase of 10 per cent.

Silk forms the principal item in the business transactions of Milan. During the year ending June 30, 1872, the amount of raw silk, tram, and organzine, seasoned, was 34,943 bales. Of this about 75 bales—invoiced value \$110,000—were sent to the United States.

The manufacture of gloves (kid and lamb skin) has, within the last few years, attained a great importance, and Milan now furnishes from 800 to 1,000 dozen per day—exporting to France, Germany, England, and the United States. Large quantities of buttons are manufactured. Carriages to a considerable extent are exported to South America, Egypt, and Switzerland.

Conclusions as to the condition and well-being of the working-classes must, to a certain extent, be modified by considerations of climate, and of hereditary habits and tastes. Accustomed to and delighting in the open air, inured to greater exposure than ourselves, and at the same time possessing a climate less rigorous, they are comparatively indifferent to the price of fuel, which to us is one of the necessities of life.

So meat, which in our severer and more exhausting climate is a necessary, in theirs becomes a luxury, not being required to sustain life, the place of which is, to a certain extent, supplied by a greater abundance of natural products. Bread, wine, fruit, and vegetables, thus come naturally to constitute the main articles of food. The working-man takes for his breakfast a piece of bread, a few slices of sausage, or a handful of fruit; for his dinner, soup made from pork and vegetables, or a dish of rice and a bottle of wine. And this, which to us would seem poor and meager fare, climate and habit render natural and satisfactory.

On the whole, the working-classes here may be said to possess, in comparison with those of the United States, infinitely fewer moral and social advantages, and at the same time a lower average of physical comfort, with less extreme suffering.

## CARRARA.

*Report "on the cost and condition of labor in the Carrara consular district,"  
by Mr. Consul Torrey.*

CARRARA, July 30, 1872.

The price of daily labor in this consular district averages as follows: Marble-sculptors, from 77 to 96 cents; marble-cutters, from 39 to 58 cents; marble-polishers, from 35 to 48 cents; marble-quarrymen, from 29 to 48 cents; blacksmiths, carpenters, masons, painters, and shoemakers average about 39 cents per day; the common laborer earns from 29 to 39 cents. All mechanics work from sunrise till dark the year round, taking three hours a day for their meals in the summer months, and two hours a day during the short days of the autumn and winter. Boys and women earn from 16 to 19 cents per day in the quarries.

The principal article produced is marble, which gives employment to nearly the whole population of this district. The silver and lead mines of Seravezza are very valuable, but not extensive. House-rent and living-expenses for the mechanics and laborers are very low, quite in proportion to their earnings, but the average rent of a good house, containing ten rooms, is \$289.35 per annum.

The mechanics and laborers are very poor; they know not what comfort is. They usually have large families, and live in one or two rooms of a house, where they cook, eat, and sleep.

I have known many instances where families of from five to eight persons—men, women, and children—lived and slept in one room. Under these circumstances, their education and morals may be imagined.

Few mechanics and laborers over thirty years of age can read and write; the better class of marble-cutters only excepted.

Since the revolution of 1859 common public schools have existed, and nearly all children learn to read and write.

The value of marble, wrought and unwrought, exported to the United States direct during the year 1871 was \$626,544. A large portion of the most valuable sculpture and architectural work is sent to Florence, Rome, Leghorn, Genoa, and Marseilles, and from thence to the United States as productions of those places.

There is also a large amount of olive-oil produced in this district, and exported to the United States via Leghorn.

## VENICE.

Extract from a letter to the author from John Harris, Esq., United States consul at Venice, under date of December 12, 1873: On the condition of the working-classes in the Venetian provinces:

As regards the moral state of the workmen, particularly of artisans and machinists, in the Venetian provinces, it may be said that they are generally moral, sober, and provident. They take pride in their work, but they study but little, and are unacquainted with drawing or chemistry, and are somewhat prejudiced in favor of the technical processes of ancient usage. Now, however, they frequent schools for drawing and chemistry which have been introduced in the towns and villages contiguous to the manufactories and workshops. In general they execute varied, different, and new works with good will; they are of various and multiform genius, and it must be noticed that the system of division of labor as practiced in England and elsewhere is not here in general use. Here the same workman does many things, and passes from one work or operation to another which has an affinity with it. His habits of living being economical, he is contented with moderate wages. Although a company has been formed in Venice for the purpose of building good and suitable dwellings for workmen, these buildings are, as yet, but few in number, and the laboring-classes in this city live generally in poor, unwholesome habitations, damp and with bad odors. As the company continue their labors, this inconvenience will decrease. On the con-

trary, in the great manufacturing districts of the provinces the workmen inhabit wholesome dwellings, contiguous to the manufactories. The best are in the province of Venice: Nadaré's paper-mills at Large, and Rossi's spinning and cloth manufactory at Scipio. These are clean, dry, large, and convenient residences. The workman pays the rent, and may eventually become the purchaser.

It may be said that, as regards habitation, the workmen live badly in the city and well in the country, but the principal industrial establishments are in the country.

#### BRINDISI.

Extract from a letter to the author from the United States vice-consul, dated Brindisi, November 30, 1873 :

As regards the health, morality, and education of mechanics and workmen, I beg to state that we have here a very sober and laborious class of people, of good principles and health, but not far advanced in instruction.

#### GENOA.

Mr. Consul Spencer, in apologizing for not furnishing the information desired, adds :

I find, however, that any report that I could have made, based upon your circulars, would have been very unsatisfactory, as the conditions of life here are so different from what they are in the United States; the working-classes here rarely indulging in any greater luxuries than *polenta*, (or mush,) soup, or *minestrone*, wine, and chestnut-bread; meat, butter, and other delicacies mentioned in your list of provisions being entirely out of the question.

#### MESSINA.

Mr. Consul Behn, under date of September 5, 1872, thus writes in regard to labor in Messina :

There is but very little industry in this consular district; no manufacturing establishment except one small cotton-factory, two or three tanneries of no great importance, one flour-mill, and two silk-spinneries, the produce of which is sent to England, France, and Italy. The price of labor for workmen of all classes averages from 50 cents to \$1 per day of twelve hours, and seldom overruns the latter price.

In a more recent letter, dated October 16, 1873, Mr. Behn adds :

In consequence of a rise in the prices of the principal articles of subsistence, workmen's wages have been raised from 10 to 20 cents over those of last year, and they now vary from 50 cents to \$1.20 per day, not including board, as it is not the custom in this island to board workmen. The education and morals of workmen is yearly improving, as they and their sons visit the day and night schools, and it is to be hoped that before long this class of people will occupy the same rank as the workmen of all other countries.

[From the British Almanac for 1874.]

In Southern Europe the general rate of wages is on a low scale, although in some parts of Italy the remuneration obtained by several kinds of art-workmen is very good. In the ship-building, iron-founding, and other handicrafts, requiring a combination of manual strength and skill, the workmen can obtain from \$4.38 to \$7.30 per week. There are also numerous trades peculiar to Italy, in which skilled workmen can obtain from \$3.90 to \$5.34 per week; but all descriptions of unskilled labor are very cheap. Strikes are infrequent, disputes between employers and employed rarely proceeding beyond the preliminary stages. Like the Swiss workman, the Italian artisan is patient, steady, and thrifty in his habits. He contrives to live well and to save money on wages which would scarcely keep an English workman from the work-house. If he were equally industrious with the Englishman, he would take rank among the élite of the European laboring-classes. But the influence of climate is too productive of indolence, although in some of the Italian sea-coast towns the workers display an amount of energy which does them credit. The principles of co-operation are much practiced in Italy, the working of the various associations being not unlike those in England and Germany, and care being taken to keep them free from those dangerous utopian ideas which have in Spain and France found practical development in the form of communism. The quality of Italian work is generally very good, but the principal difficulty of the workman is to gain decent lodging-accommodation at a moderate price and to avoid paying

too much for provisions. These two drawbacks form serious obstacles, against which he is almost powerless to contend, save by living outside the town in which his place of employment is situated, lodgings being cheaper in the outlying villages, where also food can be obtained at lower rates, not having to pay the obnoxious "octroi" demanded at the gates of the town.

From additional information in regard to labor in Italy, recently received, the following facts are selected:

#### PROVINCE OF PARMA.

*Linen.*—The principal establishment for the manufacture of this fabric employs from 90 to 100 women; reelers receiving from 7 to 8 cents, and weavers from 13 to 23 cents per diem. The highest prices are paid for piecework.

*Glass and earthen-ware.*—The total number of hands employed is 67, of whom 23 (19 men and 4 women) are in the pottery department, and 44 (all men) in glass making. The wages of the potters are from 23 to 28 cents per diem, and for the women, 10 cents. The glass-makers rise from a minimum of 19 cents to a maximum of \$1.15 per diem. They have work for only three months in the year.

*Nails.*—The nail-makers of the city of Parma only supply local wants; wages about 32 to 48 cents for foundlers per diem, 24 to 48 cents for blacksmiths, 42 to 46 cents for copersmiths. Foremen in foundries, &c., received from 62 to 72 cents, and apprentices from 10 to 15 cents.

*Soap and candles.*—Men receive 28 cents, and women 19 cents per diem.

*Paper.*—The wages vary for men from 15 to 28 cents; for women, from 10 to 17 cents; for children, from 8 to 13 cents.

*Printing-offices.*—The wages of compositors are from 19 to 38 cents; of apprentices, from 6 to 12 cents; of printers, 33 cents per diem. Piecework is paid as follows: Compositors, from 3 to 4 cents; apprentices, from 1 to 1½ cents, and printers 4 cents per hour.

*Liqueurs, beer, and aerated waters.*—The wages given in all these industries are as follows: Foremen, 38 cents and upward per diem; ordinary workmen, 28 cents; women, maximum wages 19 cents per diem.

#### VENICE.

*The Nerille foundry.*—This foundry employs upward of 300 hands, and turns out machinery of every magnitude, description, and quality. In spite of high duty on coals and iron, this factory is highly flourishing; the workmen are equal to the best in England, and so well conducted that no strike has occurred since its establishment, and the men are satisfied with their wages and condition.

*Bronze-foundry.*—The bronze-foundry of Michieli & Co. deserves notice, and is an establishment where not only the fine bronze works of Italy peculiar to the fourteenth, fifteenth, and sixteenth centuries are perfectly reproduced in all sizes, but even works of modern art are cast at the option of the sculptor, after the manner and the time of Michel Angelo and Benvenuto Cellini.

*Glass-works of Venice and Murano.*—For many centuries past these works have been celebrated for the fineness of their products. In A. D. 674 St. Benedict engaged Venetian artists to furnish the windows of Weremouth Abbey, and from that time, or even anterior to it, the same manufactory—probably the oldest in the world—has had a continuous existence. The manufacture of glass is still an important Venetian industry, the export of this fabric in 1874 having amounted to £313,200, or about \$1,524,000 in gold. In 1867 the exports of glass were more than twice the usual average, owing to the introduction of glass beads in the fashions of the day.

*Burano lace.*—The manufacture of this fabric, which receives its name from a small island formerly celebrated for its lace-work, has recently been revived under the auspices of the Princess Giovanelli and the Countess Marcello, who found an aged woman, the last of her craft, who still remembered the method of making this lace, and engaged her to instruct a number of girls in this almost-forgotten art. The immediate demand for the first specimens produced was extraordinary. The cost of the fabric (about 100 francs per meter, of the width of 12 centimeters) is considered to be under its value. It takes 150 days of five working-hours per diem for one workwoman to produce a single meter, the woman's pay being one-half franc per diem.

The "*gros point de Venise*" is also to be revived at Burano. The distinguished engineer Dr. Fambri (six years a deputy in the Italian Parliament) has published the following estimate of the labor involved in the manufacture of one meter of this lace of a quality never surpassed in ancient times:

- I. Three months' wages of one hand for the net-work.
- II. One month's wages of one hand for the flowers.
- III. An extra month's wages for the ornamental border.

Dr. Fambri suggests that "this industry should be developed, were it only to save the secret of the art, as no kind of manufacture exists more capable of giving sustenance to thousands with a merely nominal capital."

## LABOR IN MODERN GREECE.

In one of the introductory chapters of this work, under the above caption, the condition of labor in Greece in ancient times, (labor then being of a servile character,) was presented. Modern Greece, retaining little else than its classic renown, presents but few points of interest to the inquirer after manufacturing and mechanical industries.

## EXPORTS.

The exports to the United States are of small amount, and consist chiefly of fruit and wool. In the fiscal year 1874 the value of the total imports, direct and indirect, into the United States from Greece, reached but \$561,875, of which fruit amounted to \$423,992, and wool to \$105,325.

Hon. John M. Francis, recently United States minister resident at Athens, thus wrote in regard to the principal exports :

Greece exports annually from \$6,000,000 to \$8,000,000 worth of Zante currants. The larger proportion is shipped to England, but the demand for the fruit in the United States is yearly increasing. Her exports of olive-oil amount to nearly \$4,000,000 annually; and of cotton and cotton yarns, silk, and products of silk, coarse wool, wines, &c., the value is quite large. The exportation of lead and other minerals is increasing. The production of cotton is also becoming an important interest in Greece. Previous to our late civil war but little was raised; now the average crop amounts to about 5,500,000 pounds. Formerly the cotton was all exported; now a large proportion of it is manufactured into cotton yarn, no less than 16 factories having been established for this purpose, employing 25,460 spindles, the yearly manufacture of which amounts to 2,200,000 pounds of yarn. Greek yarn is largely displacing the English article in many of the Levant markets. There are eight silk manufactories in the kingdom. The exports of these manufactories last year were upward of \$750,000.

Fish P. Brewer, esq., United States consul at Piræus, under date of June 29, 1872, writes as follows in regard to cotton and other exports :

Six-sevenths of the cotton-crop is raised in the district of Lebadeia, where it is pressed and baled, and then hauled sixty or seventy miles on a macadamized road to Piræus. A part of the cotton is bought by the Piræus twist-factories, of which there are three. One recently began operations; the other two have been making from 32,000 to 35,000 bundles of twist annually. Nearly all of this is used in Greece, but a little is shipped, free of duty, to Turkey.

Various other raw products pay an export duty, as cocoons, acorns, figs, currants, and tobacco.

Some products pay different rates, according to the district where raised, perhaps on account of an assumed difference in quality, as : tobacco from Argos, 7c. per lb.; from elsewhere, free; acorns from Athens or Kea, 4c. per lb.; from Peloponessus, or elsewhere, 1 1/2c. Figs pay 4c. per lb., but, if raised on public lands, double rates, apparently as including rent to the state.

Currants pay a little less than 4c. per lb. Cocoons pay 11c. per lb. Emery pays 1c. per lb. On the free list are wool, hides, cumin and sesamé seeds, wine, olives, oil, and silk.

No bounties are paid on any article of export, yet it is noteworthy that articles exported are exempt from local custom-dues in transit to the port, which would have to be paid if the same articles were sold in home markets, for home consumption. These duties are levied to support the local governments, and their amount is very various.

Mr. Francis states that the culture of the vine and the manufacture of wine and spirits are important industries :

The vineyards cover about 500,000 acres of land, or one twenty-eighth of the area of plantations properly so called. About 2,000,000 barrels of wine are produced annually, and of this aggregate, less than 100,000 barrels are exported. The gross value is about \$1,600,000. The cultivation of the olive-tree is also a feature. The latest returns show that there are about 8,000,000 olive-trees in the kingdom, covering an area of 350,000 acres, and producing annually 22,000,000 lbs. of olives. The market reports of the Bulletin almost every day evidence the growth of our Mediterranean trade; and in that growth Greece, as we have said, is a prominent participant.



## RATES OF WAGES.

Mr. Consul Brewer, under date July 30, 1872, furnishes the following rates of daily wages of mechanics at Piræus :

Painters, \$1.14; blacksmiths, carpenters, masons, and plasterers, 95 cents each; inferior hands as low as 57 cents; journeymen shoemakers, for each pair of country shoes, 57 cents, and a good workmen will make three pairs in two days. Two boatmen, with a sail-boat, will earn \$1.52 for a long day's work. Three dollars and eighty cents per month is fair wages for a servant girl. Most mechanics work from sunrise to sunset, taking, in summer, an hour for breakfast and two hours for nooning, during which they generally take a nap. House rent is \$7.60 per month for a four-roomed tenement, and \$11.40 for six rooms. A workingman can get his meals for 20 cents a day.

## MECHANICAL AND FARM LABOR.

*Statement showing the rate of wages paid for mechanical and farm labor in Athens, Piræus, and Syra, Greece, without board, in the year 1873.*

Occupation.	Athens and Piræus.	Syra.
<b>Skilled workmen:</b>		
Blacksmiths.....per day..	\$0 90 to \$1 20	\$0 80 to \$0 90
Bricklayers or masons.....do..	85 to 1 00	65 to 75
Cabinet-makers.....do..	90 to 1 00	80 to 85
Carpenters.....do..	90 to 1 00	75 to 80
Coopers.....do..	80 to 90	75 to 80
Miners.....do..	90 to 1 30	80 to 90
Machinists.....do..	80 to 1 40	85 to 90
Painters.....do..	50 to 1 00	80 to 85
Plasterers.....do..	75 to 1 00	70 to 75
Shoemakers.....do..	65 to 80	65 to 70
Stone-cutters.....do..	90 to 1 40	45 to 50
Tailors.....do..	70 to 90	45
Tinsmiths.....do..	60 to 1 00	40 to 45
Wheelwrights.....do..	80 to 1 20	40 to 45
<b>Ship-building:</b>		
Carpenters. { First-class.....do..	1 00 to 1 40	-----
{ Second-class.....do..	70 to 90	-----
Joiners.....do..	1 00 to 1 20	-----
Calkers.....do..	1 20 to 1 30	-----
Blacksmiths.....do..	70 to 80	-----
<b>Farm-laborers:</b>		
Experienced hands.....do..	60	30 to 40
Ordinary hands.....do..	50	-----
Common laborers at other than farm-work.....do..	66	30 to 40
Female servants.....per month, with board..	2 00 to 5 00	3 00 to 4 00
<b>Price of board:</b>		
For workmen.....per week..	1 50 to 2 00	2 00 to 2 25
For workwomen.....do..	1 25 to 1 33	1 50

## PRICES OF PROVISIONS, GROCERIES, ETC.

*Statement showing the prices of provisions, groceries, and other leading articles of consumption, with house-rent and board, in the towns of Piræus and Syra, Greece, in the year 1872.*

Articles.	Piræus.	Syra.
<b>PROVISIONS.</b>		
<b>Flour:</b>		
Wheat, superfine, of Trieste.....{ per barrel of 168 pounds..	\$8 00 to \$9 00	-----
Wheat, of the Piræus Mills.....do..	04 to 04½	\$0 07 to 08
Rye.....do..	None.	None.
Corn-meal.....do..	None.	None.
<b>Beef:</b>		
Fresh, roasting-pieces.....per pound..	11 to 12	12 to 14
Fresh, soup pieces.....do..	10½ to 11	12 to 14
Fresh, rump-steaks.....do..	12 to 13	12 to 14
Corned.....do..	None.	None.
<b>Veal:</b>		
Fore-quarters.....do..	16 to 17	13 to 14
Bind-quarters.....do..	15 to 16	13 to 14
Cutlets.....do..	13 to 14	13 to 14

*Statement showing the prices of provisions, groceries, &c.—Continued.*

Articles.	Piræus.	Syra.
<b>Mutton:</b>		
Fore-quarters.....per pound..	\$0 10½ to \$0 11	
Leg.....do.....	11 to 12	\$0 13 to \$0 14
Chops.....do.....	11 to 12	13 to 14
<b>Pork:</b>		
Fresh.....do.....	10 to 11	10
Corned or salted.....do.....	None.	None.
Bacon.....do.....	None.	None.
Hams, smoked, imported, foreign.....do.....	36 to 38	
Shoulders, imported, foreign.....do.....	28 to 30	
Sausages, imported, foreign.....do.....	40 to 45	28
Sausages, freshly made, in market.....do.....	15 to 20	
Lard.....do.....	20 to 25	16
Codfish, dry.....do.....	06 to 06½	6
Mackerel, pickled.....do.....	None.	03
Butter.....do.....	22 to 24	24 to 26
<b>Cheese:</b>		
Produced in the country.....do.....	10 to 14	15 to 17
Swiss and Dutch.....do.....	20 to 25	
Potatoes.....do.....	01½ to 02	02
Rice, Genoa.....do.....	04 to 05	04
Beans.....do.....	02½ to 03	02 to 02½
Milk.....per gallon..	20 to 25	
Eggs.....per dozen..	14 to 15	12 to 14
<b>GROCERIES.</b>		
Tea, Oolong, or other good black.....per pound..	85 to 90	
<b>Coffee:</b>		
Rio, green.....do.....	25 to 27	25 to 28
Rio, roasted.....sold in extremely small quantities..		
<b>Sugar:</b>		
Good brown.....do.....	None.	None.
Yellow C.....do.....	None.	None.
White, crushed.....per pound..	10	12
<b>Molasses.</b>	None.	None.
Sirup.....do.....	None.	None.
Soap, common.....per pound..	06	
Starch.....do.....	07 to 08	07
<b>Fuel:</b>		
Charcoal.....per cwt..	58 to 65	
Wood, hard.....per ton..	11	12 00 to 13 00
Wood, pine.....do.....	11	
Oil, olive.....per gallon..	65 to 70	
<b>DOMESTIC DRY GOODS, ETC.</b>		
T-cloth.....per piece of 24 yards..	2 20 to 2 60	
<b>Shirts:</b>		
Brown, 4-4, standard quality.....per yard..		20
Bleached, 4-4, standard quality.....do.....		20 to 25
Sheetings, bleached, 9-8, standard quality.....per piece of 40 yards..	4 50 to 4 60	
Cotton-flannel, medium quality.....per yard..		30
Tickings, good quality.....do.....		10 to 12
Mouseline de laines.....do.....		15 to 18
Satinets, medium quality.....do.....		40 to 45
Boots, men's.....per pair..	2 00 to 2 50	2 00
<b>HOUSE-RENT.</b>		
Four-roomed tenements.....per month..	8 00 to 10 00	10 00 to 12 00
Six-roomed tenements.....do.....	12 00 to 15 00	15 00 to 18 00
<b>BOARD.</b>		
For men, (mechanics or other workmen).....per week..	1 50 to 2 00	
For women employed in factories.....do.....	1 20 to 1 25	
<b>LODGING.</b>		
Tolerable unfurnished lodgings can be procured at from \$1.75 per month for one room and \$3.80 per month for two rooms, a kitchen, and a small court. No taxes, no water, nor gas laid on; plenty of public fountains with good water.		

## EXPENDITURES OF WORKINGMEN'S FAMILIES.

*Statement showing the average weekly expenditure of a family consisting of two adults and two children in Piræus, Greece, in 1872 and 1873.*

Articles.	1872.	1873.
Flour and bread .....	\$0 68	\$0 80
Fresh, corned, salted, and smoked meats .....	57	20
Cheese, olives, and sundries .....	19	05
Sugar .....	17	30
Coffee .....	13	.....
Fish, fresh and salt .....	19	15
Soap, starch, salt, pepper, vinegar, &c. ....	19	19
Potatoes and other vegetables .....	39	18
Fruits, green and dried .....	09	05
Fuel for cooking only .....	19	00
Oil or other light .....	.....	00
Other articles .....	.....	12
Wine .....	28	10
Tobacco .....	13	.....
House-rent .....	95	64
For educational, religious, and benevolent objects .....	11	10
Total weekly expenses .....	4 24	2 95
Clothing per year, (partly earned by wife) .....	44 00	25 00
Taxes per year .....	None.	None.
Weekly earnings .....	5 13	.....

The average weekly expenditures of a family of two adults and five children in the town of Syra were found to be \$3.50, and the earnings of the same family from \$3.50 to \$4.50 per week.

## CONDITION OF THE WORKING-CLASSES.

Mr. J. J. Bucherer, United States vice-consul at Piræus, under date of November 15, 1873, writes :

The working-class of this town is, generally speaking, laborious, and of a quiet and peaceful character. They are not given to drinking and gambling. They live very economically, and like to send their children to school.

## LABOR IN BELGIUM.

Belgium, one of the smaller kingdoms of Europe, is a perfect bee-hive of industry, both agricultural and mechanical. A historical sketch of the rise and progress of some of those industries would be extremely interesting, if space admitted of its presentation. Although small in extent of territory, it embraces peoples entirely distinct in language and traditions. The Flemings (Teutonic) and the Walloons, (Celtic,) distinguished by their peculiar dialects, are still conspicuous among the pure Germans, Dutch, and French. Like the French, the Belgians are strongly opposed to emigration;\* the parents being unwilling to part with their children, who all contribute the proceeds of their labor to the common stock, and although the wages are extremely low, even after the advance in 1871 and 1872, as compared with those of England, yet the united earnings of a family amount to a considerable sum.† This stay-at-home policy results, of course, in an increase of the population, which, in 1871, was 5,113,680—a larger number per square mile than in any other country in Europe.‡

The government of Belgium is a limited constitutional monarchy, and was established in its present form in 1830. The country had been previously the theater of almost innumerable wars while under the dominion successively of Spain and France, and while forming a constituent part of Holland. Indeed, owing to its geographical position Belgium has been the battle-ground of Europe, more especially in the fierce struggles between the allied powers and the first Napoleon. The possession of Belgian territory had always been regarded by Napoleon as

\* The number of emigrants from Belgium during the past fifty-four years was but a little over 20,000, as will be seen by the following statement :

During the decade from 1820 to 1830 .....	28
During the decade from 1831 to 1840 .....	22
During the decade from 1841 to 1850 .....	5, 074
During the decade from 1851 to 1860 .....	4, 738
During the decade from 1861 to 1870 .....	7, 416
During the year 1871 .....	168
During the year 1872 .....	964
During the year 1873 .....	1, 306
During the year 1874 .....	705
<b>Total .....</b>	<b>20, 421</b>

† The director of the paper-mill at Huy stated to the author that the earnings of one family, consisting of father and several sons and daughters, exceeded 10,000 francs (\$2,000) in the year 1871. At Jumet, the seat of glass-works, many families own the houses in which they live; some workmen being worth 50,000 francs.

‡ The following table shows the population of Belgium by provinces and per square mile on the 31st of December, 1871 :

Provinces.	Square kilometers.	Population.	Population per square kilometer.	Population per square mile.
Antwerp .....	2, 831. 73	497, 017	175. 52	454. 50
Brabant .....	3, 282. 96	887, 905	270. 46	700. 50
Flanders, West .....	3, 234. 67	670, 833	207. 39	537. 25
Flanders, East .....	2, 999. 05	840, 512	280. 17	725. 75
Hainaut .....	3, 721. 62	900, 595	241. 72	626. 75
Lidge .....	2, 893. 88	598, 458	206. 80	535. 50
Limbourg .....	2, 412. 34	200, 668	83. 18	215. 50
Luxembourg .....	4, 417. 76	204, 037	46. 18	119. 50
Namur .....	3, 660. 25	313, 655	85. 69	222. 00
<b>Total .....</b>	<b>29, 455. 16</b>	<b>5, 113, 680</b>	<b>173. 60</b>	<b>449. 50</b>

of vast importance as an advanced post from which he might proceed to other conquests. Under the rule of France, Belgium suffered severely from the conscription laws, which deprived the country of its active laborers. The benevolent and charitable institutions of Belgium are numerous. To prevent the misery and frequently the crime arising from the want of employment among the working-classes, charity-workshops have been established in Ghent, Liège, and other towns. The able-bodied are paid according to their work, and the aged and infirm according to their necessities. In each commune is a *bureau de bienfaisance* for assisting the poor with money, food, and clothing. Belgium is abundantly rich in various kinds of minerals, as coal, iron, calamine, &c., forming a valuable source of employment to many thousands of its inhabitants. Its iron-mines are extensive. Marble also is abundant in many parts of Belgium.

#### EXPORTS TO THE UNITED STATES.

The chief industries which enter into competition with similar productions of England and the United States are glass and glass-ware, iron, machinery, and various other manufactures of iron, paper, and woolen cloths. Its chief export to the United States is window-glass, the abundance of raw materials and cheapness of labor enabling them to compete successfully with New Jersey and Western Pennsylvania. In bar-iron and rails, and in some kinds of machinery, Belgium is able to underbid England in European and other markets.

The extent and variety of the exports to the United States are indicated in the following :

*Statement showing the imports of merchandise from Belgium into the United States during the fiscal year ended June 30, 1874.*

Articles.	Quantities.	Value.
<b>FREE OF DUTY.</b>		
Articles of the United States brought back .....		\$941, 897
Chemicals, dyes, &c. ....		27, 333
Coffee ..... pounds..	1, 186, 550	243, 316
Horse-hair, used for weaving..... do..	18, 691	6, 799
Hides and skins.....		58, 474
Paper materials..... pounds..	10, 515, 093	540, 063
All other articles.....		29, 075
Total free of duty.....		1, 148, 765
<b>DUTIABLE.</b>		
Beer, ale, &c. .... gallons..	3, 108	1, 177
Books, &c. ....		9, 368
Brass and manufactures of.....		6, 136
Breadstuffs, barley..... bushels..	92, 518	95, 533
Buttons, &c. ....		2, 371
Chemicals, &c. ....		33, 631
Chicory..... pounds..	108, 196	4, 646
Cotton, manufactures of.....		26, 151
Earthenware.....		4, 085
Fancy goods.....		18, 539
Flax and manufactures of.....		29, 012
Fruits of all kinds.....		117, 064
Glass and glass-ware.....		2, 047, 308
Iron and steel:		
Pig-iron..... pounds..	9, 707, 221	202, 230
Bar-iron..... do..	894, 888	21, 171
Sheet-iron..... do..	114, 645	7, 967
Other manufactures of.....		157, 848
Leather, manufactures of.....		59, 669
Paintings, &c. ....		47, 519
Paper and manufactures of.....		57, 718
Silk, manufactures of.....		30, 677
Spirits and wines.....		128, 191
Wood manufactures.....		40, 700

*Statement showing the imports of merchandise from Belgium, &c.—Continued.*

Articles.	Quantities.	Values.
Wool:		
Raw .....	58,717	\$12,090
Manufactures of .....		429,170
Zinc, spelter, &c. ....		104,196
All other articles .....		796,437
Total dutiable .....		4,578,675
Total free of duty .....		1,148,766
Total imports of merchandise .....		5,727,441
Total imports of merchandise, 1873 .....		\$5,711,077
Total imports of merchandise, 1872 .....		5,580,461
Total imports of merchandise, 1871 .....		4,178,714

### BELGIAN HUSBANDRY.

Since 1830 the agricultural condition of the country has been much improved, and while it is not intended to enter at large upon this topic, yet the high state of cultivation, and the attractive appearance of the country presented to the author as he passed through it, in several directions, demands a passing notice. The golden grain was literally ready for the sickle, or the reaping-hook, for, owing to the cheapness of labor, the improvements in agricultural machinery were then used to but a limited extent in Belgium and the countries of Continental Europe.

The following paragraphs from Chambers's Journal afford interesting information on the subject under consideration:

In Eastern Flanders, of a hundred acres of land, seventy-two are sown with cereals and plants used in manufactures; twenty-eight with roots and forage; but to the latter must be added thirty-one acres of after-crop, which gives fifty-nine as affording excellent food for cattle, superior to common meadows, and which shows how poor land can pay a rent of five pounds an acre. The second sowing consists of turnips and spergula, after colza, flax, and early potatoes; and the carrot, which is sold in the spring with the preceding crops, and carefully hoed after they have been taken away. The clovers have occupied the ground during the winter, leaving it clear for April sowing; and the giant cabbage develops during the cold season, making a stem some six feet high, and giving abundant and excellent leaves for milch-cows. Culture thus pushed to the extreme necessarily requires some capital, and it is reckoned that, through a system of rigorous parsimony and saving, double the sum per acre is used in Belgium to that employed in England, and two-thirds more on the best farms. In this way the most dense population in Europe can subsist on a soil so little favored by nature.

Turning to one of the most fertile parts of Belgium, all, as has been said, is charming—every road is bordered with trees; not a rise in the ground is seen; all is calm, uniform, and presents an image of quiet, comfort, and peace. Each house is detached and surrounded with large apple-orchards hedged in by box, holly, or hawthorn, where the cows are brought to feed every morning and evening. It is of one story only and thatched, containing four rooms—the first for meals, the second for the dairy and preparing the food for cattle, and the others for sleeping-rooms. The old-fashioned oak furniture is a model of brightness; tin and copper utensils shine on the walls, which are whitewashed. The garden is gay with wall-flowers, dahlias, and hydrangeas, and the florists' flowers which are to be shown at Ghent.

Outside, everything is in its place; nothing spoils the greensward; the ditch and the manure-heap are banished; the latter is always under the roof of the stable or cowshed. In this stand five or six large cows, the constant care of the farmer's wife, who gives them abundance of green meat in summer, with straw, hay, and a kind of warm soup, mixed with carrots, turnips, or rye, in winter. Thanks to this nourishment, and the constant rest they enjoy, the animals give from fifteen to twenty-five quarts of milk daily. The tools are simple, but of first-class construction: the plow is light, drawn by one horse, and works with ease and regularity. The harrows are of various kinds, triangular, rectangular, and parallelogram; but the special tool with which the Fleming has fertilized lands, dried up marshes, and forced back the sea, is the spade. The proverb on the banks of the Scheldt is: "The spade is a gold mine to the peasant, and different kinds are made for light or heavy soil."

The fields are mostly square, and rarely contain more than an acre; the ground is curved symmetrically, the center being the highest, so that the water drains down equally in all directions. Round the field, and a foot lower, extends a strip of grass, three or four yards wide; still lower, a hedge is planted, which is cut every seven years; and finally, the plot is surrounded by a ditch bordered with trees of larger growth. Thus each piece furnishes rich grass, firewood every seven years, and timber for building every thirty years. The plow is generally used, but every seven years the subsoil is turned to the top by the spade, and thus it acquires a depth unknown to all but the best gardens; the principal object being to produce flax and butter, not cereals. The best farmers never sell their corn, but allow their cattle to consume it.

Unhappily, the farm-laborer there, as well as elsewhere, does not enjoy much comfort; working harder than most men, he is the worst fed. Rye-bread, potatoes, beans, buttermilk, without meat or bacon, is the usual fare; chicory the constant drink; beer reserved for Sundays and fair-days. His wages vary from ten pence to a shilling, and he could never live upon it did not all the members of his family work without ceasing. When the day's work is ended, often by moonlight, the father cultivates his small field; his wife and daughters take up the poorly-paid lace-work, instead of the old spinning-wheel, which steam has superseded; his sons, when their field-work is done, bring up rabbits for the London market. Their little hands pick up every tuft of herbage on the roadside, and open up a large trade of exportation not to be despised. From Ostend alone there come to us 1,200,000 rabbits every year; these are skinned and cleaned in Belgium, where the skin is used for the making of hats. Yet, although their life is so hard, the towns do not attract the rural population. Habit and family traditions bind them to the plow.

While grain is the chief product, flax is largely cultivated, especially in Flanders. The quality and mode of dressing which is practiced there is considered superior to that of any other country, and no doubt the superior quality of the lace fabricated in Ghent, Bruges, Malines, Mechlin, and Antwerp, as well as in Brussels, is in part due to the excellence of the raw material.

The farmers who raise their own flax generally spin and weave a sufficient quantity for their domestic wear, and sometimes for sale in the home market, while the principal part of the crop is reserved for conversion into fabrics as lace, ticks, checks, and thread for exportation.

#### WAGES AND SUBSISTENCE

Before presenting information in regard to the cost and condition of labor in Belgium, obtained in 1872, personally and through the assistance of others, the author submits some data of a similar character, but which were collected and published in previous years.

It is to be regretted that the bureaus of statistics of Europe, while they have gathered, collated, and published detailed information on various subjects, in many cases thoroughly classified, which, in this utilitarian age, may be regarded—at least in a country like the United States, whose chief concerns are of a commercial and industrial character—as not of primary importance, have hitherto given but a limited share of attention to the great industrial and commercial interests. All knowledge is valuable, but while we are members of civil communities, the material interests of these communities should not, it is submitted, be regarded as of secondary importance. It is true that commercial information is, to some extent, gathered and imparted by governmental authorities, yet it cannot be denied that nearly the whole of the valuable facts relating to the industrial, and a large part of those relating to the commercial interests, of the various peoples, are procured by individuals or by chambers of commerce and other commercial or industrial associations.

With the exception of Great Britain, which country has made diligent inquiries into the rewards and condition of the working-classes of other

countries, for the purpose of comparison with those of her own work-people, and of occasional inquiries by other governments into instances of widespread suffering, arising from the depressed condition of some particular industry, no official publications have been found from which to draw such information as was required in the preparation of this report.

A notable exception to the above is here acknowledged with the more pleasure as it affords occasion to refer to that eminent scientist, the "father of modern statistics," the late M. Adolphe Quetelet, director of the royal observatory of Belgium. To him, more than to any one else, is due the origin and successful establishment of the International Statistical Congress, which held its first session at Brussels in September, 1853. The statistics of industry engaged the attention of the congress and some data were submitted, the forms for which had previously been prepared by the central committee of statistics and approved by the minister of the interior. Before submitting the plans to the congress it was deemed wise to subject them to the test of experiment; the blanks were transmitted to the provincial statistical committees with explanations as to the course to be pursued, and many took an interest in the kind of information to be obtained, and zealously set about gathering materials; others recoiled before a task which they did not think could lead to exact satisfactory results. In consequence of delays and hesitations inseparable from a new and difficult work confided to the good will of persons absorbed with their own duties, the time rolled away, and when the congress met the central committee had not received sufficient replies to make their submission to the congress practicable as a test. Later, however, the information was obtained and compiled by M. Ducpetiaux, and was published by the central commission of statistics in 1855.\* Whether in the value of the information afforded, in its fullness of detail or its arrangement, this admirable work may be justly regarded as a model, and now that the mutations in the cost and condition of labor have destroyed its value for contemporary purposes, it is a subject of deep regret that it has not been periodically followed by publications prepared upon the same plan, in which full and trustworthy information of a similar character might be brought down to the most recent date. As both labor and subsistence have appreciated in the two decades which have intervened since the prices given in the work under consideration were obtained, the author of this report contents himself with the translation and presentation of a few of the tables published by M. Ducpetiaux.

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\* Budget économiques des classes ouvrières en Belgique, subsistances, salaires, population, par. Ed. Ducpetiaux, inspecteur général des prisons, et des établissements de bienfaisance, membre de la commission central de statistique, etc., Bruxelles, 1855.



## WAGES IN 1854.

*Average daily wages paid in various branches of industry in Belgium.*

Industries.	Adult males.	Adult females.	Boys.	Girls.	Industries.	Adult males.	Adult females.	Boys.	Girls.
	Cents.	Cents.	Cents.	Cents.		Cents.	Cents.	Cents.	Cents.
Coke and coal .....	41.4	24.4	17	14.4	Silk .....	25	18.8	7.6	11.8
Metallurgy:					Ribbons, fringe, &c. ....	26	12.2	6.8	4.5
Chief establishments..	40.2	21.4	13.4	11.8	Gas-factory .....	28	15.8	9.2	12.4
Secondary establish'ts.	28.6	14.4	9	8.4	Wood:				
Artisans .....	25.2	18.2	7.4	7.4	Factory-hands .....	35.6	14.2	9.2	5
Slate-factories, &c.:					Artisans .....	24.2	10	7.6	5
Factory-hands .....	31.4	20	11	12	Leather:				
Artisans .....	29	14.8	12.4	11	Factory-hands .....	29	22.4	10	8.4
Glass-factories:					Artisans .....	19.2	12.2	6.4	8.4
Factory-hands .....	51.6	13.6	14.8	14	Paper and printing:				
Artisans .....	22.8	15	8	.....	Factory-hands .....	28.8	15.4	8.2	8.2
Manuf'ctories of linen, &c.:					Artisans .....	38.6	13.8	7.6	6
Factory-hands .....	16	10.8	9	9.8	Chemical products:				
Artisans .....	16	8.4	7	6	Factory-hands .....	29.2	17	7.8	5
Wool .....	32.4	16.2	11.6	11.2	Artisans .....	29.6	8.8	7.6	10
Cotton:					Various trades .....	32	15.8	9	5
Factory-hands .....	31	21.6	9.2	10					
Artisans .....	25	12.2	5	7.2	General average .....	29.8	14.2	10.8	7.8

\* By "artisans" here is meant persons working by themselves for their own account or that of the manufacturer.

## WAGES IN LIÈGE.

*Average wages per day paid to male laborers in the following industries.*

[The franc computed at 20 cents.]

## Cannon foundry:

	Maximum.	Minimum.
Founders .....	\$1 00	\$0 34
Laborers .....	35	30
Adjusters .....	60	32
Smiths .....	1 00	36
Strikers .....	40	34
Turners .....	50	36
Joiners .....	45	35
Masons .....	50	32

## Iron-works:

Firemen .....	85	
Smiths .....	50	
Puddlers .....		70
Laborers .....		29

## Zinc factory:

	Hours of labor.	Maximum.	Minimum.
Foreman .....	12	\$0 69	
Laborers .....	12	47	
Stone-cutters .....	12	50	
Machinist .....	10		\$0 57
Joiner .....	10		40
Fireman .....	10		45

## GHENT.

*Daily wages of factory hands in Ghent.*

	Maximum.	Minimum.
Males .....	\$2 00	\$0 25.4
Females .....	41	18
Boys, (12 to 16 years) .....	26	09
Children under 12 years .....	10	06

Taking the number of working days in a year at 278, (deducting for holidays, absence, accidental interruptions, &c.,) the average earnings per year would be—

For males at an average of 48 cents.....	\$131 44
For females at an average of 28 cents.....	75 84
For boys of 12 to 16 at an average of 17½ cents.....	48 65

The lowest possible weekly expenses of a factory laborer's family with four young children in Ghent are thus given :

Bread, (wheat and rye) .....	\$0 92
Flour .....	02
Onions .....	02
Potatoes .....	45
Butter .....	48
Clothing .....	16
Coffee and chiccory .....	11
Fuel and light .....	20
Soap and starch .....	07
Milk .....	04
Rice .....	05
Vinegar, pepper, and salt .....	06½
<b>Total .....</b>	<b>243½</b>

In cases of sickness aid is given by relief associations instituted among workmen, which pay during sickness to laborers—

First class, per week .....	\$1 50
Second class, per week .....	90
Third class, per week .....	45

### INCOME AND EXPENDITURE.

*Average annual income of workmen's families in Belgium.*

Province of—	Class of family.	Occupation.	Wages or salary of—			From all other sources.	Total.
			Husband.	Wife.	Children.		
Brabant .....	First..		\$60 19	\$17 40	\$36 53	\$14 60	\$128 72
	Second		95 16	22 25	44 07	21 09	163 57
	Third.		143 38	31 50	55 00	28 68	258 56
Flanders, East ..	First..		58 40	11 61	33 13	6 15	109 29
	Second		99 18	15 30	31 74	12 88	159 10
	Third.		135 30	16 39	44 44	18 12	214 25
Flanders, West...	First..	Farm-laborer .....	55 00	15 00	80 00	10 00	160 00
	Second	Shoemaker and one journeyman.	93 60	18 00	21 00	41 60	174 20
	Third.	Journeyman-carpenter .....	110 00		15 00	80 00	205 00
Antwerp .....	First..	Day-laborer .....	60 00	10 00	12 00		82 00
	Second	Weaver .....	74 00	20 00	34 00		128 00
	Third.	Carpenter, with son and two jour- neymen .....	190 00	12 00	50 00		252 00
Limbourg .....	First..	Farm-laborer .....	52 40	27 60	40 00	33 00	153 00
	Second	Foreman of distillery .....	109 98			61 00	170 98
	Third.	Gardener .....				238 00	238 00
Hainaut .....	First..		79 50	19 08	50 88	7 42	156 88
	Second	Fireman .....	160 16				160 16
	Third.	Blacksmith .....	223 60	76 32	111 30		410 22
Liege .....	First..	Printer .....	125 30	46 99	20 87		193 16
	Second	Workman in warehouse .....	206 50	10 00		43 10	259 60
	Third.	Coppersmith .....	300 00	41 60	80 00		421 60
Namur .....	First..	Joiner .....	60 00	15 00	20 00	36 00	131 00
	Second	Gardener .....	62 60	4 92	40 49	31 91	139 92
	Third.	Coppersmith, family of six per- sons .....	135 00			229 40	364 40
Luxembourg .....	First..	Mason .....	68 00	20 00	10 00	68 00	166 00
	Second	Shoemaker .....	174 72	62 40	44 68	12 00	293 80
	Third.	Carpenter .....	208 40	60 00	44 80	200 00	513 20

*Average annual expenditure of workingmen's families in Belgium.*

Provinces of—	Class of family.	Occupation.	Articles of a physical or material nature.	Articles of a religious or intellectual nature.	Luxuries.	Total.
Brabant .....	First..		\$123 60		\$4 00	\$126 60
	Second.....		179 04	2 47	3 40	177 91
	Third.....		237 48	8 14	5 98	251 56
Flanders, East ..	First..		114 63	1 55	1 73	117 22
	Second.....		159 80	1 50	2 15	163 43
	Third.....		172 94	1 45	1 96	176 35
Flanders, West ..	First..	Farm-laborer .....	138 80	10 00	8 82	147 62
	Second.....	Shoemaker and one journeyman ..	175 21	2 28		177 49
	Third.....	Journeyman-carpenter .....	192 10	5 90		198 00
Antwerp .....	First..	Day-laborer .....	118 17		7 46	125 63
	Second.....	Weaver .....	122 65	1 00	4 08	127 73
	Third.....	Carpenter, with son and two journeymen.	216 40	3 80	24 95	245 15
Limbourg .....	First..	Farm-laborer .....	170 12		6 00	176 12
	Second.....	Foreman of distillery .....	156 20	4 00	10 67	170 87
	Third.....	Gardener .....	218 17	1 50	4 55	224 22
Hainaut .....	First..		159 11	1 06	3 71	163 88
	Second.....	Fireman .....	146 02	3 20	10 94	160 16
	Third.....	Blacksmith .....	368 88	11 68	29 68	410 24
Liege .....	First..	Printer .....	254 52	3 40	15 13	273 05
	Second.....	Workman in warehouse .....	239 57	6 20	5 49	251 26
	Third.....	Coppersmith .....	386 35	6 40	11 24	403 99
Namur .....	First..	Joiner .....	119 29	1 20	9 00	129 49
	Second.....	Gardener .....	133 04	59	4 46	138 00
	Third.....	Coppersmith, family of six persons ..	325 40		12 00	337 40
Luxembourg .....	First..	Mason .....	156 50		9 40	165 90
	Second.....	Shoemaker .....	222 68	15 04	15 08	252 80
	Third.....	Carpenter .....	306 52	57 87	23 20	387 59

*Detailed statement of income and expenditure of a laborer's family of six persons in the district of Brussels.*

[1 hectoliter = 2 84 bushels. 1 kilog. = 2 2046 pounds. 1 franc = 20 cents, in United States equivalents.]

## INCOME.

## From wages :

Of husband, 270 days, 72 centimes (14.4 cents) .....	\$38 88
30 days, 2 francs (40 cents) .....	12 00
Of son of 18 years, 270 days, 72 centimes (14.4 cents) .....	38 88
30 days, 2 francs (40 cents) .....	12 00
Of son of 16 years, 100 days, 54 centimes (10.8 cents) .....	10 80
	<u>\$112 56</u>

## From other resources :

## 75 acres of land rented :

4 hectoliters wheat, at \$3.60 .....	14 40
4 hectoliters rye, at \$2.20 .....	8 80
500 kilograms potatoes, at \$1.60 per 100 kilograms .....	8 00
78 kilograms butter, at 40 cents .....	31 20
	<u>62 40</u>
1 calf, \$5; 1 fat pig, \$25 .....	30 00

## Products of garden :

170 kilograms hops, \$22.88; fruits and vegetables, \$9.60; tobacco, \$1.40 ..	33 88
--	-------

Total income..... 238 84

## EXPENDITURE.

## Provisions:

1 hectoliter wheat, at \$3.60 .....	\$3 60
20 hectoliters rye, at \$2.20 .....	44 00
1,000 kilograms potatoes, at \$1.60 per 100 kilograms.....	16 00
Vegetables .....	10 00
75 kilograms pork, at 18 cents .....	13 50
10 kilograms beef, at 20 cents .....	2 00
25 kilograms butter, at 32 cents .....	8 00
Milk .....	3 00
400 eggs, at 80 cents per 100.....	3 20
Salt, spices, &c.....	6 00
25 kilograms coffee, at 40 cents.....	10 00
10 kilograms chicocory, at 10 cents .....	1 00
150 liters beer, at 1½ cents.....	2 40
	<hr/>
	\$122 70

## Rent:

For dwelling, containing 1 kitchen, 2 bedrooms, 1 pantry and stable, also small garden .....	\$7 00
75 acres of farming land, and 20 acres garden .....	20 00
	<hr/>
	27 00

## Clothing:

Husband—2 pantaloons, \$2.60; 2 vests, \$1.20; 2 jackets, \$1.10; 2 blouses, \$2.40; 2 cravats, 40 cents; 2 handkerchiefs, 30 cents; 3 linen shirts, \$1.95; 2 drawers, 50 cents; 2 caps, 60 cents; 2 pairs socks, 45 cents; 1 pair shoes, \$1.20; 4 pairs wooden shoes, 50 cents.....	\$13 20
Son of 18 years, \$13.20; son of 16 years, \$8 .....	21 20
	<hr/>
	34 40
Wife—1 cotton dress, \$1.60; 2 petticoats, \$1.60; 2 linen shirts, \$1.20; 3 neck-handkerchiefs, 60 cents; 2 pocket-handkerchiefs, 20 cents; 2 pairs stockings, 50 cents; 2 jackets, 80 cents; 2 aprons, 40 cents; 3 pairs wooden shoes, 30 cents; 1 pair shoes, 50 cents; 3 hats, 40 cents; pins, &c., 5 cents.....	8 15
Daughter of 13 years, \$4; daughter of 10 years, \$2.40....	6 40
	<hr/>
	14 55
	<hr/>
	48 95

## Bedding:

1 mattress, \$1; 2 sheets, \$1; 2 covers, (cotton,) 80 cents; bolster, 20 cents; straw for mattress, 20 cents .....	3 20
Bed and bedding for sons, \$3.20; bed and bedding for daughters, \$2.	5 20
	<hr/>
	8 40

## Sundries:

Fuel—3,500 kilograms coal, at \$3.05 per 100 kilograms.....	10 50
Light—10 liters oil, at 15 cents.....	1 50
Washing—20 kilograms soap, at 10 cents .....	2 00
Sewing-thread, needles, &c.....	60
Maintenance of dwelling.....	1 60
Purchase, &c., of furniture.....	60
Taxes and other contributions.....	1 93
Tools for farming.....	1 36
Expense on farm for seeds, &c.....	8 00
	<hr/>
	28 09

Church, 30 cents; books, pens, paper, &c., 60 cents; amusement, 60 cents; tobacco, \$1.40 .....	2 90
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Total expenditure .....	<hr/>	238 04
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## BALANCE.

Income .....	\$238 84
Expenditure .....	238 04
	<hr/>
Surplus .....	80

Table showing details of income and expenditure of workmen's families in the province of Brabant, Belgium, in 1854.

(First class includes indigent laborers, partly supported by public charity; second class includes indigent laborers not supported by public charity; third class includes workmen in independent positions.) Amounts expressed in United States gold dollars—the franc computed at 20 cents.

Expenses.	City of Nivelles.			Commune of Bornival.			Commune of Hestain.		
	First class.	Second class.	Third class.	First class.	Second class.	Third class.	First class.	Second class.	Third class.
	Day-laborer.	Weaver.	Slater.	Reaper.	Paper-box maker.	Sabot-maker.	Day-laborer.	Mason.	Cabinet-maker.
<b>I.—OF A PHYSICAL OR MATERIAL NATURE.</b>									
Provisions:									
Wheat bread .....			\$478 62		\$4 00	\$6 00			
Rye bread .....				\$30 00	30 00		\$465 52		
Mixed bread .....	\$478 62	\$287 36						\$473 80	\$773 80
Potatoes and vegetables .....	\$31 84	\$17 69	\$14 56	16 00	16 00	12 00	\$32 76	\$32 76	\$32 00
Meat .....			5 20	4 00	8 00	10 00	60	\$5 20	\$20 00
Milk, eggs, and fish .....	3 64	4 37	5 20	2 00	3 00	4 00			4 16
Butter, oil, and lard .....	3 12	\$8 73	7 48	2 00	5 00	5 00	5 72	4 68	6 97
Spices, salt, &c. ....	1 66	1 66	1 48	2 00	4 00	4 00		2 08	2 08
Tea, coffee, and chicocory .....	3 33	3 64	5 72	3 00	2 40	2 40	8 74	8 74	10 40
Beer, cider, and wine .....						2 40		2 40	4 80
Rent .....	12 06	11 96	15 60	12 00	12 00	16 00	8 00		
Clothing .....	21 50	14 00	21 60	6 00	10 00	12 00	29 70	22 00	\$0 00
Bedding .....	1 60	2 00	3 00	2 00	2 00	3 20			
Fuel .....	6 24	10 40	11 44	8 00	8 00	8 00	4 00	8 00	8 32
Light .....	3 12	4 37	4 16	1 20	2 00	3 00	1 52	2 08	2 08
Washing .....	4 37	2 60	5 90	2 00	3 00	3 00	2 50	5 92	6 32
Cure of health, bath, &c. ....	1 04		1 66		80	1 00			
Treatment in sickness .....			2 00			2 00			
Repair and maintenance of dwelling .....				80	1 20	1 20			5 00
Purchase and repair of furniture .....	2 00	2 00	3 00	40	1 60	2 00	2 00	2 00	2 40
Contributions and taxes .....				40	1 20	2 40	40	1 60	3 60
Postage and other expenses .....						60			
For tools, (excluding first purchase) .....		1 00	1 00						
Cost of garden or land .....				1 60	2 00	2 40			6 00
<b>Total .....</b>	<b>164 14</b>	<b>171 77</b>	<b>186 80</b>	<b>92 40</b>	<b>116 30</b>	<b>137 60</b>	<b>161 58</b>	<b>180 26</b>	<b>220 33</b>
<b>II.—RELIGIOUS AND INTELLECTUAL.</b>									
Church .....									
School .....								3 40	4 40
Books, &c. ....								60	1 00
Subscription, &c., in charity .....									
Savings-bank .....									
<b>Total .....</b>								4 00	5 40
<b>III.—FOR LUXURIES.</b>									
Coffee-houses, saloons .....	2 00	1 87	2 08	60	1 20	1 60	3 33	6 65	5 28
Tobacco .....	1 04	1 04	1 40	1 60	2 00	2 00	1 04	1 04	1 04
Ornament in dress .....					80	1 60			
Public festivities, &c. ....									
Interest on loans .....		52							
<b>Total .....</b>	<b>3 04</b>	<b>3 43</b>	<b>3 48</b>	<b>2 20</b>	<b>4 00</b>	<b>5 20</b>	<b>4 37</b>	<b>7 69</b>	<b>6 32</b>
<b>Total expenses .....</b>	<b>167 18</b>	<b>175 20</b>	<b>190 28</b>	<b>94 60</b>	<b>120 30</b>	<b>142 80</b>	<b>164 97</b>	<b>191 95</b>	<b>226 39</b>
<b>INCOME.</b>									
Father's wages .....	93 86	104 00	111 60	54 00	76 00	80 00	60 00	117 00	156 00
Mother's earnings .....	45 08	30 00	54 00	10 00	10 00	12 00	16 00		
Children's wages .....	22 53	10 40	22 52	22 00	22 00	24 00	52 20	78 00	93 00
From other sources .....		28 00	4 00	10 00	20 00	23 00	6 00		
<b>Total .....</b>	<b>161 47</b>	<b>172 40</b>	<b>192 12</b>	<b>96 00</b>	<b>128 00</b>	<b>139 00</b>	<b>134 20</b>	<b>195 00</b>	<b>249 00</b>

a 16 kilogs., at .82 cent per week; per pound, U. S., 3.8 cents.  
 b 21 kilogs., at .06 cent per day; per pound, U. S., 2.7 cents.  
 c 21 kilogs., at .76 cent per week; per pound, U. S., 3.45 cents.  
 d 20 kilogs., at .82 cent per week; per pound, U. S., 3.8 cents.  
 e 20 kilogs., at .07 cent per day; per pound, U. S., 3.16 cents.  
 f 20 kilogs., at .07 cent per week; per pound, U. S., 3.16 cents.  
 g 21 kilogs., at .02 cent per week; per pound, U. S., .9 cent.  
 h 17 kilogs., at .02 cent per week.

i 14 kilogs., at .02 cent per day; per pound, U. S., .9 cent.  
 j 26 kilogs., at .018 cent per day; per pound, U. S., .8 cent.  
 k 25 kilogs., at .018 cent per day; per pound, U. S., .8 cent.  
 l 23 kilogs., at .018 cent per week; per pound, U. S., .8 cent.  
 m 3 kilogs., at .20 cent per day; per pound, U. S., .9 cents.  
 n 1/2 kilog., at .10 cent per week; per pound, U. S., .9 cents.  
 o 2 kilogs., at .20 cent per week; per pound, U. S., .9 cents.  
 p 4 kilogs., at .024 cent per day; per pound, U. S., 4.36 cents.

Table showing details of income and expenditure of workmen's families, &amp;c.—Continued.

Expenses.	Commune of Wanthier Braine.			Commune of Itterbeck.			Commune of Leuw St. Pierre.		
	First class.	Second class.	Third class.	First class.	Second class.	Third class.	First class.	Second class.	Third class.
	Farm-labor-er.	Slater.	Mason.	Farm-labor-er.	Carpenter.	Shoemaker.	Day-laborer.	Day-laborer.	Laborer in china-ware.
<b>I.—OF A PHYSICAL OR MATERIAL NATURE.</b>									
<b>Provisions:</b>									
Wheat-bread .....			\$152 88						
Rye-bread .....	\$87 36			\$31 20	\$31 20		\$52 00		
Mixed bread .....		\$100 20				\$36 40		\$72 80	\$72 80
Potatoes and vegetables .....	26 00	20 80	28 88	20 80	20 80	20 80	15 60	18 72	18 72
Meat .....		6 24	16 64	10 40		10 40		20 80	41 60
Milk, eggs, and fish .....	2 08	1 04	4 16	4 68	4 68	4 68	4 99	4 99	10 00
Butter, oil, and lard .....	15 60	15 60	33 69	16 64	9 36	16 64	16 64	31 20	41 60
Spices, salt, &c .....	3 12	3 12	3 33	1 56	1 56	1 56	3 64	8 32	
Tea, coffee, and chocolate .....	5 20	5 20	11 24	3 12	3 12	3 12	8 32	8 32	12 48
Beer, cider, and wine .....			7 28					5 62	14 56
Rent .....	5 20	5 20	5 00	10 40	10 40	10 40			
Clothing .....	21 52	20 80	46 80				20 00	48 00	96 00
Bedding .....	1 04	10 40	7 80	1 20			2 00	4 00	8 00
Fuel .....	8 73	8 73	8 73	4 00	5 20	5 20	8 00	9 60	10 40
Light .....	4 16	4 37	4 37	2 08	2 08	2 08	1 60	2 84	3 20
Washing .....	1 04	2 60	2 60	1 25	1 25	1 25	4 00	6 00	8 00
Care of health, bath, &c .....					1 20				
Treatment in sickness .....			20 80					6 00	8 00
Repair and maintenance of dwelling .....	1 04	1 04	5 00				2 00	5 60	7 00
Purchase and repair of furniture .....	1 04	73	5 00				1 20	3 60	8 00
Contributions and taxes .....	33	53	3 60				50	5 00	8 00
Postage and other expenses .....	8 32		40					40	80
For tools, (excluding first purchase) .....		8 32	6 00						
Cost of garden or land .....		63	2 00				2 40	5 20	5 20
<b>Total .....</b>	<b>191 78</b>	<b>224 85</b>	<b>376 20</b>	<b>107 33</b>	<b>90 85</b>	<b>112 53</b>	<b>143 19</b>	<b>267 01</b>	<b>374 36</b>
<b>II.—RELIGIOUS AND INTELLECTUAL.</b>									
Church .....			3 12						
School .....			5 20		1 88			4 80	6 40
Books, &c .....			1 04					2 00	3 00
Subscription, &c., in charity .....									
Savings-bank .....									
<b>Total .....</b>			<b>9 36</b>		<b>1 88</b>			<b>6 80</b>	<b>9 40</b>
<b>III.—FOR LUXURIES.</b>									
Coffee-houses, saloons .....		1 04	2 60					2 08	41 60
Tobacco .....			1 25				4 16	5 20	10 40
Ornament in dress .....									
Public festivities, &c .....								2 00	6 00
Interest on loans .....									
<b>Total .....</b>		<b>1 04</b>	<b>3 85</b>				<b>4 16</b>	<b>9 28</b>	<b>58 00</b>
<b>Total expense .....</b>	<b>191 78</b>	<b>225 89</b>	<b>380 41</b>	<b>107 83</b>	<b>92 73</b>	<b>112 53</b>	<b>147 35</b>	<b>263 09</b>	<b>432 36</b>
<b>INCOME.</b>									
Father's wages .....	72 00	90 00	176 00	45 00	80 00	90 00	45 00	121 60	221 20
Mother's earnings .....	20 00	24 00	34 00		8 00	18 00	6 70	60 20	72 80
Children's wages .....	64 00	82 00	150 00	24 00			43 00	91 20	79 20
From other sources .....	20 00	36 00	70 00	19 00	3 40	4 53	20 00		
<b>Total .....</b>	<b>176 00</b>	<b>232 00</b>	<b>430 00</b>	<b>88 00</b>	<b>91 40</b>	<b>122 53</b>	<b>114 00</b>	<b>273 60</b>	<b>443 20</b>

Table showing details of income and expenditure of workmen's families, &amp;c.—Continued.

Expenses.	City of Aerschot.			City of Tirlemont.			Commune of Labbeek.		
	First class.	Second class.	Third class.	First class.	Second class.	Third class.	First class.	Second class.	Third class.
	Day-laborer.	Day-laborer.	Day-laborer.	Day-laborer.	Tailor.	Machinist.	Day-laborer.	Day-laborer.	Day-laborer.
<b>I.—OF A PHYSICAL OR MATERIAL NATURE.</b>									
Provisions:									
Wheat-bread .....						\$31 20		\$7 28	\$10 28
Rye-bread .....	\$20 39	\$20 39	\$20 39	\$52 57	\$52 57	11 24	\$57 20	52 00	49 49
Mixed bread .....									
Potatoes and vegetables .....	20 60	20 60	20 60	10 20	15 28	27 20	9 12	29 12	36 92
Meat .....		19 40	18 20		20 80	31 20		3 12	21 24
Milk, eggs, and fish .....	2 92	3 20	5 84			11 00	5 16	10 20	9 99
Butter, oil, and lard .....	4 00	7 80	11 65	10 40	28 00	62 40	4 26	16 12	24 96
Spices, salt, &c. ....				1 67	1 67	4 00	2 91	2 91	5 52
Tea, coffee, and chocolate .....	11 65	11 65	11 65	6 88	20 80	10 40	4 37	9 67	12 89
Beer, cider, and wine .....			14 00		6 24	24 00		8 73	16 64
Rent .....	16 00	16 00	19 00	14 00	20 00	40 00	18 20	15 00	22 00
Clothing .....	35 00	35 00	42 60	3 20	20 00	20 00	16 00	28 00	40 00
Bedding .....	2 00	3 00	2 60				5 00	7 00	10 00
Fuel .....	6 00	6 00	6 00	1 05	7 00	15 00	8 00	12 00	20 00
Light .....	1 00	1 20	1 20		2 00	10 40	2 00	3 00	4 00
Washing .....	3 00	3 40	4 00				3 02	6 03	6 03
Care of health, bath, &c. ....							1 00	1 00	6 00
Treatment in sickness .....	2 00	2 00	3 20				60	2 00	10 00
Repair and maintenance of dwelling .....						6 00	1 00	2 00	6 00
Purchase and repair of furniture .....	2 00	2 00	5 00				2 00	4 00	5 00
Contributions and taxes .....							80	1 40	6 00
Postage and other expenses .....							40	1 20	1 20
For tools, (excluding first purchase) .....								2 40	8 00
Cost of garden or land .....			9 00				20	6 00	7 00
<b>Total .....</b>	<b>120 56</b>	<b>142 64</b>	<b>194 93</b>	<b>99 97</b>	<b>192 36</b>	<b>304 04</b>	<b>141 18</b>	<b>230 78</b>	<b>334 61</b>
<b>II.—RELIGIOUS AND INTELLECTUAL.</b>									
Church .....									
School .....			4 80						9 17
Books, &c. ....									1 20
Subscription, &c., in charity .....									1 20
Savings-bank .....									
<b>Total .....</b>			<b>4 80</b>						<b>11 57</b>
<b>III.—FOR LUXURIES.</b>									
Coffee-houses, saloons .....	5 20	7 80	15 60		10 40	12 00		1 25	1 25
Tobacco .....	1 45	1 45	1 45		1 25	3 00	14 15	14 15	14 15
Ornament in dress .....									
Public festivities, &c. ....									
Interest on loans .....									
<b>Total .....</b>	<b>6 65</b>	<b>9 25</b>	<b>17 05</b>		<b>11 65</b>	<b>15 00</b>	<b>14 15</b>	<b>15 40</b>	<b>15 40</b>
<b>Total expenses .....</b>	<b>127 21</b>	<b>151 69</b>	<b>216 78</b>	<b>99 97</b>	<b>204 01</b>	<b>319 04</b>	<b>155 33</b>	<b>246 18</b>	<b>361 38</b>
<b>INCOME.</b>									
Father's wages .....	54 00	100 00	150 00	73 00	146 00	219 06	50 00	73 00	124 00
Mother's earnings .....	18 00	14 28	11 00	14 00	22 20	36 50	10 00	16 00	36 00
Children's earnings .....	36 00	37 60	35 20		36 40	36 50	16 00	24 00	54 00
From other sources .....	19 21		20 67	12 97		25 03	6 00	18 00	40 00
<b>Total .....</b>	<b>127 21</b>	<b>151 88</b>	<b>216 87</b>	<b>99 97</b>	<b>211 60</b>	<b>317 03</b>	<b>82 00</b>	<b>131 00</b>	<b>264 00</b>

## IRON, GLASS, AND OTHER INDUSTRIES.

The following extracts from the report of the Chamber of Commerce of Charleroi, in May, 1872, furnish valuable information in regard to the most important industries of that part of Belgium:

*Statistics of metallurgy.*

Works.	1860.	1870.	1871.
<b>SMELTING-WORKS.</b>			
Workshops, (No. 1).....	13	13	13
Active furnaces, (No. 1).....	25	25	27
Inactive furnaces, (No. 1).....	13	25	14
Number of workmen.....	2,340	2,283	2,319
Manufactured products.....tons..	307,446	327,743	528,198
Molding-iron.....do..	19,642	30,520	31,520
Refining-iron.....do..	360,774	297,228	337,600
<b>ROLLING-MILLS.</b>			
Workshops.....	20	20	20
Puddling-furnaces.....	333	365	394
Reheating-furnaces.....	132	149	162
Steam-engines.....	190	209	223
Horse-power of steam-engines.....	5,939	6,338	6,587
Hydraulic wheels.....	3	3	3
Horse-power of hydraulic wheels.....	115	115	115
Workmen employed.....	7,182	7,119	7,139
Products.....tons..	261,938	283,495	236,441
<b>FORGING AND CONDENSING ESTABLISHMENTS.</b>			
Workshops.....	20	20	21
Furnaces with reverberators.....	17	19	23
Open furnaces.....	42	39	41
Steam-engines.....	5	5	5
Horse-power of steam-engines.....	63	63	63
Hydraulic wheels.....	34	34	34
Horse-power of hydraulic wheels.....	249	419	429
Workmen engaged.....	196	203	223
Products.....tons..	2,904	4,023	.....
<b>FOUNDERIES.</b>			
Workshops in action.....	39	43	42
Cupolas.....	79	85	80
Steam-engines.....	39	36	39
Horse-power of steam-engines.....	330	209	318
Workmen engaged.....	889	944	992
Products.....tons..	16,538	18,486	20,337
<b>TOTALS.</b>			
Workmen engaged.....	10,607	10,609	10,672
Cast iron produced.....tons..	336,984	346,234	380,157
Value of cast iron produced.....frances..	25,828,930	27,273,645	30,572,224
Wrought iron produced.....tons..	264,442	287,518	240,702
Value of wrought iron produced.....frances..	44,319,300	50,853,608	44,320,040

**CONSTRUCTION WORKS.**

The works, or establishments for the construction of machinery, participated in the general favorable movement of the latter part of 1871. The demand for stationary machinery, apparatus, and tools for the coal-mining and for metallurgical workshops, exceeded the ordinary means of producing them, and resulted in the rapid extension of business, which largely benefited our working-classes.

This beneficial effect made itself also felt over the repair-shops of our country.

In our last report we had to call attention to the limited relations our works had with foreign countries. This year we are enabled to make the most satisfactory statements on this point, as orders of importance were transmitted to some of our principal constructors from Russia, Germany, and France, and everything tends to indicate that these relations will continue and increase. A considerable number of pieces of machinery and locomotive-wheels, of wrought iron, were delivered to Prussia, although they were taxed at the rate of 4.35 francs (87 cents United States coin) per 100 kilograms on entering the German Zollverein.



## NAILS.

The wrought-nail manufacture continues in the state of half existence mentioned in our last report, and threatens to decline more every year to finally be reduced to a few specialities for exportation.

The buyers, foreseeing the rise in the prices of split iron, hastened to secure the stock on hand, thus still more advancing the prices which, together with high labor, rendered difficult the manufacture of this article.

The machine-nail manufacture has maintained itself during the past stormy period in good condition, not having had to contend with French competition. It is expected to continue to prosper, owing to the perfected and economical modes of fabrication acquired by the Belgian manufacturers. There is but the slightly advanced price of raw material, which could in any manner affect the position of the Belgian trade in this article.

## GLASS-WORKS.

The disastrous events which have so strongly marked the last months of the year 1870 continued to exercise their depressing influence on the commencement of 1871. Notwithstanding this, the situation of the window-glass industry could be called a relatively good one. Owing to the small exportation to France and Germany prior to the war, our manufacturers suffered less during the same, and survived without much difficulty the terrible days of 1870, and while the fears of a general European conflagration were about being quenched, the furnaces recommenced work. Their number had sunk to 89 during the war, but by the 1st of January, 1871, there were 118, and a short time after 125, in activity. The number of active furnaces before the war was 119.

First-quality glass found ready sales in England and the United States, which are still our best customers.

The statistics of the window-glass exports for 1871 show a large decrease on those of the previous years; the quotations show a constant rising of the prices, both on account of high wages for labor and the upward tendency of the market fluctuation, as well as the defective quality of the raw material. The sulphate of soda, which rose from 9½ to 10, 11, and even 12 francs, and the impossibility the manufacturers are placed in to procure the necessary qualities for the manufacture of a good article—an impossibility arising from the poor means of transportation—are serious obstacles to the prosperity of the window-glass trade.

## TOTAL EXPORTS OF WINDOW-GLASS.

	1869.	1870.	1871.
Kilograms .....	45,898,254	40,847,233	28,487,933

It will be seen that the increase of 1869 over 1871 amounts to 17,410,321 kilograms, and is consequently yet greater than that of 1870 over 1871, the latter being of 12,359,300 kilograms. There was a marked decrease in our most important outlets.

Countries.	1871.	1870.	1869.
	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>
England.....	12,684,179	18,194,241	19,351,047
United States .....	5,369,775	8,167,166	9,906,334
Sweden and Norway.....	17,350	56,587	10,604
Denmark .....	329,146	796,050	758,942
Hanseatic cities .....	2,082,571	2,536,118	3,666,218
Italy .....	138,663	447,145	373,245
Switzerland .....	63,362	204,024	395,327
Austria .....	186,091	403,405	496,622
Turkey .....	962,688	2,481,210	2,164,333
Egypt.....	204,020	346,555	590,104
British possessions .....	790,820	1,333,464	1,239,161
Cuba and Porto Rico .....	202,962	320,538	56,573
Brazil .....	155,534	336,372	545,465
Rio de la Plata .....	317,324	582,438	755,470
Chili and Peru.....	532,680	596,658	451,824
All other countries .....	163,616	207,094	751,137

The greatest occupation of the manufacturers during the last winter was the difficulty of obtaining the necessary coal for the supply of their establishments. Notwithstanding all the steps taken by the special delegates of commerce and industry to the government, or the repeated reclamations made by all the heads of workshops,

the state of affairs at our establishments remained in the same critical condition. The want of the material did not only prevent the shipment of the products to Antwerp at certain stipulated dates, but, and what is worse, caused the forced interruption of work at the shops.

Such was the position the owners of our glass-works were placed in for several months; expecting to be forced to stop their establishments at any moment, and in the mean time continuing to work with coal of improper quality, procured wherever it could be had.

#### BOTTLE-MANUFACTURE.

The manufacture of bottles has kept pace with the movements of the window-glass industry. Under the influence of the general resumption of business, the last month of 1871 brought with them a more favorable situation. There are in this country fourteen bottle-works, twelve of which were in operation during the year 1871, and each of them produced an average of 900,000 to 1,000,000 bottles per year. Each of these kilns consumes some 200,000 kilograms of coal per month.

#### JUMET, BELGIUM.

Jumet, the seat of the window-glass manufacture, a village some four miles distant from Charleroi, was visited in September, 1872, by the author, some of whose notes are appended. He regretted his inability to see Mr. André, to whom he bore a letter, but that gentleman subsequently furnished the desired information in regard to the glass industry of Belgium in a letter, extracts from which are here presented:

JUMET, November 18, 1872.

DEAR SIR: \* \* \* Urgent business prevented me from answering your inquiries before this day.

I inclose herewith, 1, statements of the rates of wages, &c., paid in this country to blowers, gatherers, teasers, flatteners, glass-cutters, packers, pot-makers, laborers, clerks, foremen, managers, &c., in window-glass works; 2, the percentage of the cost of manufacturing 100 feet, &c.; 3, names and number of establishments which are owned and worked by glass-makers.

You are no doubt aware that the Belgian window-glass manufacturers export their produce to all the markets of the world; and they are able to undersell any nation that exports glass. I should think the fact that the Belgian manufacturers can sell their glass cheaper than any foreign manufacturer, is mainly owing to cheap labor and large production for each man. For, (except this year,) coals and sulphate of soda have always been much cheaper in England than they were here; the former 30 per cent. to 50 per cent. lower for coals used in glass-works, the latter 10 to 12 per cent. lower. Now, coals and sulphate of soda are used in very large proportion in glass-making.

The Belgian window-glass manufacture has not been a profitable business for many firms during a great number of years. Of thirty-six establishments which have failed or suspended with loss of money since the year 1842, fifteen were owned and worked by men who had previously been employed as glass-makers, foremen, managers, and clerks.

*Rates of wages paid to window-glass makers in Belgium in 1872, per calendar month.*

Occupation.	No. 1.	No. 2.	No. 3.	Occupation.	No. 1.	No. 2.	No. 3.
Blower .....	\$180	\$120	\$100	Glass-cutter, (supplies his own diamonds.)	\$20	\$20	\$16
Do .....	110	100	80	Sorter, (to select the qualities of glass.)	32	30	24
Do .....	80	80	70	Packer .....	20	18	16
Teaser, to melt .....	35	35	30	Miller, (to grind materials, &c.)	18	18	18
Teaser, to refine .....	40	40	40	Mixer, (to mix material) .....	18	18	18
Teaser helper .....	32	32	30	Pot-maker .....	40	30	30
Flattener .....	18	18	18	Pot-maker helper .....	20	20	16
Do .....	40	36	30	Blacksmith .....	25	25	25
Do .....	36	32	28	Carrier .....	20	20	20
Do .....	30	30	26	Laborer in the yard .....	18	18	18
Flattener helper .....	16	16	16	Girls in the yard .....	10	10	10
Flattener, 5 lads .....	12	12	12	Foreman .....	40	36	30
Glass-cutter, (supplies his own diamonds.)	30	30	26	Manager .....	170	70	50
Do .....	26	24	22				

*Percentage of cost of window-glass.*

	In 1860.	In 1872.
	<i>Per cent.</i>	<i>Per cent.</i>
Labor.....	34	35
Materials.....	23	20
Fuel.....	20	25
Packing.....	12	10
Pottery.....	5	5
General expenses.....	7	5
	100	100

## REMARKS BY MR. ANDRÉ.

Each blower employs his own gatherer, and pays him his wages out of his own earnings, at the rates of \$40 for the very best; \$35 for good hands; \$30 for second class; and \$26 for third-class gatherers. There are not above ten blowers whose monthly wages average \$180. They blow very large and heavy pieces; which article is in very limited demand. Glass-makers work about forty-eight to forty-nine weeks a year; the three or four weeks remaining are required to repair the furnace.

As a matter of course, managers and clerks earn higher salaries in large glass-works than those employed in small concerns; with regard to the salary of foremen, there is little difference in large or small establishments.

Window-glass blowers, gatherers, flatteners, and teasers work on Sundays and feast days. The Belgian window-glass manufacturers do not lodge their workmen, nor do they supply them with any fuel, as the English manufacturers do.

There are no unions among the Belgian glass-makers; and there has been no strike among them since the year 1826.

Though the Belgian glass-makers are not now so hardworking, so steady, so saving, or so sober as they were twenty or thirty years ago, yet I consider them superior in the above respects to the French and the English glass-makers. When I was manager of glass-works in England I used to employ English, Belgian, and French glass-makers; and it is from the experience I have of them that I give this opinion. I may observe that I am not biased by any national partiality or prejudices, as I am a native of France.

Among the saving Belgian glass-makers, there are several who are now manufacturers. These firms are the following:

Name of firm.	Number of furnaces.	Formerly—
Schmidt, Devilly & Co.....	6	Blowers.
Joseph Devilly & Co.....	5	Teasors.
L. Mondron.....	5	Blowers.
Schmitt Frères.....	5	Do.
Bastin & Wilhelms.....	2	Managers.
Schmidt, Bratten & Co.....	2	Blowers.
Monoyer Frères.....	3	Glass-cutters.
Monoyer, Defer & Co.....	1	Do.
A. Andris & Co.....	2	Blowers.
Manderlier & Co.....	2	Do.
L. Greff & Co.....	2	Do.
Meyem & Co.....	2	Do.
E. Deweyre & Co.....	2	Do.
Dellont Frères.....	2	Glass-cutters.
A. Missano.....	2	Do.
Deulin.....	1	Do.
Goffe & Co.....	1	Blower.
Coquiamont & Co.....	1	Do.
Laurent, Lettines & Co.....	3	Do.
Total.....	49	

The foregoing information from Mr. André, who has had experience as a manager of glass-works in France and England, as well as in Belgium, and who has a thorough and practical acquaintance with the subject, renders any extended extracts from the notes of the author

unnecessary. A few facts may, however, be presented from the author's note-book :

*Jumet, September 24, 1872.*—Came from Namur to Charleroi by rail, 36 miles, passing through the southeastern part of Belgium, which is devoted to the manufacture of iron and glass. From Charleroi, came out to this place in a carriage, and visited the large glass-works of Messrs. Bennert & Bivort. They employ nearly 1,000 work-people, some of whom have been with them for twenty years, and have laid by considerable money, some being worth 50,000 francs. Many of them own the houses in which they live, and even where this is not the case, each family occupies a whole house. If otherwise, there is a separate entrance to each tenement or suite of rooms. The rental of dwellings is as follows: For four or five rooms, 20 francs (\$4) per month; larger houses, 40 francs, (\$8.) For the very best, only 60 francs, (\$12), each house having a piece of land for a garden attached.

#### WAGES.

The earnings of the workmen are as follows: A few blowers of great skill earn as high as 40 francs (\$8) a day, or 1,000 francs (\$200) per month, out of which they pay the gatherer.

The net earnings of blowers average  $7\frac{1}{2}$  francs (\$1.50.) per day. Those who press the glass average 4 francs, (80 cents.) The great mass of the workmen, including those who cut the cylinders into panes, each from 3 to 4 francs (72 to 96 cents) per day. Unskilled laborers from 2 to 3 francs (40 to 60 cents) per day. Women and girls earn but  $1\frac{1}{2}$  francs (30 cents) per day. In the fields near Jumet, and in the towns on the railway where they are employed in shoveling coal and in other unpleasant work, women earn almost  $1\frac{1}{2}$  francs (30 cents) per day. Here, as elsewhere, there has been a considerable advance from the rates formerly paid. The price of provisions is moderate, though much higher than formerly. Went into a little shop which sold bread and ascertained that the price of a loaf of good white bread (weighing  $2\frac{1}{2}$  kilograms) was one franc, (20 cents,) being a little under 4 cents per pound. This firm does a very extensive business, and sells largely to the United States. Although there is no passenger railway to Charleroi, they have built a railway on which they transport their merchandise to the station. The facilities which Jumet presents for the manufacture of glass consist in the abundance of raw material—sand, lime, and coal—all being in the vicinity. Coal has doubled in price, costing now from 22 to 25 francs (\$4.40 to \$5) per 1,000 kilograms, (about an English ton,) the price a year or two ago being but from 10 to 12 francs, (\$2 to \$2.40.)

I did not stop, as I intended, at Floreffe, where most of the plate-glass used in the United States is made.

#### PAPER-MAKING.

The manufacture of paper, although now one of the large industries of Belgium, was not introduced into that country until toward the end of the seventeenth century; its progress was not rapid during the eighteenth, but during the last fifty years it has so much developed that the exports of paper have since that time been very extensive, especially to England. Although the exports to the United States have been greatly curtailed by our high tariff, yet they reach a considerable aggregate.

The extent of the paper industry, and the extremely low rates of wages which prevailed in 1849, are indicated in the following statement:

*Number of work-people employed.*—Adults: males, 771; females, 789; total, 1,560. Children under 16: boys, 232; girls, 152; total, 384. Aggregate, 1,944.

*Daily wages.*—Under 50 centimes, (10 cents:) 6 men, 24 women, 158 boys, 115 girls; under 1 franc, (20 cents:) 121 men, 756 women, 70 boys, 37 girls; from 1 to  $1\frac{1}{2}$  francs. 442 men, 33 women, 4 boys; from  $1\frac{1}{2}$  to 2 francs: 173 men; above 2 francs, 35 men.

Percentage of adults earning less than 1 franc: men, 15.7; women, 96.

Percentage of adults earning under  $1\frac{1}{2}$  francs: men, 7.3; women, 100.

Percentage of adults earning over  $1\frac{1}{2}$  francs: men, 27.

It appears, therefore, that all the women, and 73 per cent. of the men, received, in 1849, a daily wage of less than 30 cents, while 96 per cent. of the women earned less than 20 cents per day. The advance in the rates of wages paid in this industry in 1872 over 1849 was nearly, or quite, 100 per cent.

#### GODIN AND SON'S PAPER-MILLS.

In the exhibition of the World's Industry at London, in 1851, Belgium

was only represented by one firm, Messrs. J. L. Godin & Son, of Huy,\* and attention was particularly called to the extent and excellence of their collection of paper of every description. A prize medal was awarded to them "for a large variety of printing, writing, and drawing papers, in all of which great perfection was attained." Since that period the products of the mills at Huy have obtained a high reputation in foreign markets, especially in England, to which country large exports are made.

As it was deemed important to ascertain the cost of labor in an industry whose products enter into a spirited competition with similar productions of the United States, the author took occasion to visit Huy for that purpose in September, 1872. The following extracts from his notes are presented:

*Huy, Belgium, September 23, 1872.*—Came here from Liège and Seraing on Saturday and remained to visit the paper-mills of Messrs. J. L. Godin & Son, which are said to be the largest in the world. I was cordially received by Mr. Dusenbourg, the director, who courteously gave me the information asked for, and sent a clerk to show me through the mills which are close to this old town, the other mills being some six or seven miles distant. The senior partners are deceased, and the mills are owned by a company, which retains the name of the firm, which had obtained a high reputation.

The daily production is about 25,000 kilograms, (nearly 25 tons.) I saw the record of three machines which made last year (1871) 3,192,103 kilograms of paper. They are now working to full capacity, running on Sundays, or about 363 days in the year. Limestone abounds in the neighborhood, and the coal is brought from near Seraing. The price of coal, which was formerly 6 francs, is now 18 francs (\$3.60) per ton, of 1,000 kilograms. The water is said to be excellent for the purpose desired. They make white, colored, and blue writing-papers, (the latter chiefly for the English market,) and fine printing-papers, for illustrated journals. Also, straw paper, using 6,000 kilograms (6 tons) of straw per day. They also use esparto grass extensively. Besides the fabrication of writing-papers, they make and sell ruled paper, and are extensively engaged in the manufacture of envelopes.

They export their products to England, Canada, and other countries, but not much to the United States, owing, as the director alleged, to our high tariff.

The machinery was chiefly made in this town, though some of it is of English make. The mills are very clean and sweet, and everything is done to render them healthy for the work-people. They employ in all about four hundred persons, chiefly women and girls. The latter are cleanly, neatly dressed for work, (except the rag-sorters and cutters,) bright, intelligent, and apparently happy.

The price which the company pays for rags was indicated on a card, of which the following is a verbatim copy:

"Cotons brut, 40 fr. p. 100 kilos.

"Toile à voile, 55 " " 100 "

Which, in United States coin, is 3.628 cents per pound for common cotton rags, and about 5 cents (4.99) for old sail-cloth.

#### EARNINGS.

Nearly all the employés are paid on a basis established by the late Mr. Godin, after years of study and computation, each receiving pay in proportion to the work performed. The daily earnings are as follows:

	France.	United States coin.
Women, the most industrious and best skilled .....	2½	\$0.50
ordinary .....	2	0.40
inferior, and girls .....	1½	0.30
rag-sorters and cutters .....	2	0.40
Men, engine-men and machinists .....	7 to 8	\$1.40 to \$1.60
assistants .....	4 to 6	\$0.80 to \$1.20
other workmen .....	4	0.80
Some laborers and youths as low as, but none less than .....	3	0.60

The foremen or superintendents of machines receive about 15 francs per day, or by the year, 2,500 francs, (\$500;) first assistants, 10 francs, (\$2;) other assistants and paper-cutters, 6 francs (\$1.20) per day.

The average earnings of the women are nearly or quite 2 francs per day, the larger part receiving that amount. Wages have greatly increased, of late, in this and other industries.

\*Pronounced "We."

Mr. Dusenbury stated that there is but little emigration from this part of Belgium, parents being unwilling to part with their children, although they can do better in the United States. As the cost of living is small and families usually large, the earnings of families amount to large sums in the aggregate. He mentioned the case of one family, of which the father and several sons and daughters worked in the mills, and to whom he paid last year 10,000 francs (\$2,000) as the result of their earnings.

House-rent is low here, four rooms costing from 12 to 15 francs (\$2.40 to \$3) per month, as I learned from some of the work-people who paid these prices. Others paid from 150 to 200 francs per year for three rooms.

The price of provisions here is low, indeed the whole cost of living must be low, as indicated by my bill at L'Aigle Noir, the best hotel in the place, which for an excellent room and good fare was about the same for two days as was charged for one day's accommodations elsewhere.

In the earnings of the employés in the Godin paper-mills, as given above, it must be borne in mind that the figures do not indicate the regular rates of wages, but the respective amounts which were earned by women of skill and industry. However unfavorable a comparison may be made between the industry of the work-people of Belgium and those of England and the United States in some industries or in the paper manufacture elsewhere, it is certain that in no mill or factory which the author has visited on either side of the Atlantic have the activity and industry been more apparent than in the Godin paper-mills.

Small in territory as Belgium is, there are marked differences between the inhabitants of the different provinces. The condition of the working-classes of Antwerp and of many parts of Flanders, as described in succeeding pages, is much worse than in many other portions of the kingdom. The industry and thrift, the neat appearance and good conduct of the employés of the paper-mills at Huy are more apparent when contrasted with those of

#### THE PAPER-MILLS AT DUFFEL, NEAR ANTWERP.

Being unable to visit this establishment, the author is under obligations to J. Riley Weaver, esq., United States consul at Antwerp, for the following translation of a statement, prepared by the proprietor, Mr. De Kuyff-Demeurs, dated 1872:

My manufactory employs about 130 operatives, men, women, and children, producing about 70,000 kilograms of paper per month. These work-people are grouped into more than thirty different classes. They are all paid by the piece, that is to say, they are paid more or less according to the quantity and quality of the work effected at the end of each fourteen days. It would require several tables to explain the regulations, and persons unacquainted with our industry would not readily comprehend them.

Some of our special workmen make from 3 to 10 francs (60 cents to \$2) per day. Ordinary laborers make from 1½ to 2½ francs (30 to 50 cents) per day, and the women earn from 1 to 1.20 francs (20 to 24 cents) per day. The factory goes night and day, the operatives attending every six hours. The workmen observe fête days, Sundays, the great church festivals, and two annual fête days of the commune.

They are in general ignorant, poor, and miserable; but few can read; none have any idea of hygiene, of morals, or of economy. They are all addicted to drink, and carry to the *estaminet* (liquor-shop) a large part of their earnings, which they ought to bestow upon the well-being of their families. It is only by the strictest supervision that we can secure the proper execution of the work.

As to the expenditure necessary to sustain one of our workmen's families, I am unable to give you any indication, as that depends upon and varies according to the habits of the family. A good wife is the providence of the workingman. Here the wives are not, in general, much superior to the men.

As compared with the mills at Huy, it will be observed that the earnings are much less, the women in the one receiving, on an average, 40 cents, and in the other but 22 cents, while the difference in the wages of the men is equally marked. In the relative condition there is also a wide divergence; in the one place good conduct and thrift, in the other intemperance and poverty.

## ANTWERP.

Antwerp is the principal sea-port of Belgium, situated on the river Schelde, where magnificent steamers and sailing-vessels from every part of the world are to be seen in its commodious docks. It was formerly one of the most important commercial cities in Europe. In the height of its prosperity it is said to have contained two hundred thousand inhabitants. An old author says that twenty-five hundred vessels were to be seen at one time at its docks, laden with the productions of all quarters of the globe. It is said that Napoleon endeavored to make Antwerp the rival of London in its commerce and the rival of Portsmouth as a naval establishment. He regarded the frontier of the Rhine, with Antwerp, as indispensable to the prosperity of France. Antwerp, though not celebrated for its manufactures, enjoys a high reputation for its encouragement of the arts. It is either the birth-place or the home of Rubens, Van Dyke, Teniers, Jordaens, and Quentin Matsys, whose great works still remain in their native or adopted city. In past centuries there were over thirty silk-factories in existence, employing more than four thousand operatives. In the manufacture of sewing-silk the city is still conspicuous.

## COST AND CONDITION OF LABOR IN ANTWERP.

The following letter and its accompanying statements were transmitted, at the date indicated, by Mr. Consul Weaver :

CONSULATE OF THE UNITED STATES,  
Antwerp, December 23, 1872.

DEAR SIR : In response to your request I inclose a tabular statement showing the average weekly wages earned by the laborers in the several trades, and also a statement showing the average prices of provisions, groceries, and house-rent for laborers at Antwerp during the year 1872.

Upon a superficial examination of this entire question, I found it utterly impossible to do anything like justice in reference to it, taking into account the difficulty of getting at the facts, and then deducing correct averages; but the question is one of so much importance that I thought it best to let you have what facts I have personally collected, and such suggestions as have occurred to me. I have been aided greatly by the reports for 1871 and 1872 of Mr. Grattan, British consul at Antwerp, with which I have compared and verified my figures. You are aware of the almost distrust that is manifested by the laboring people of this country when you question them as to their wages or mode of living. Even people of the better class have to be approached very judiciously to get anything like the correct prices. Either from fear or shame, they prefer not to disclose their actual condition. To give the various rates in each trade would be extremely interesting, but I have not the means of doing so accurately enough to be valuable. The rate of wages depends entirely upon the ability of the laborer and the time employed. Generally they work twelve hours per day in summer and ten in winter, and are paid by the hour. A record of the time worked each day is kept, and at the close of the week they are paid. Day-laborers are paid daily, but in the regular employments weekly; boys, girls, women, and men are employed, and receive wages as various as the number of hands employed. In but a few employments can the workmen be induced to work by the job; they prefer the hour system. As a general thing they are very deficient in skill, and very slow; one hand in the United States performing easily the work of three in Antwerp, and doing a better job. The manufacture of cigars is quite a specialty at Antwerp. At one of these factories they employ chiefly women and girls, and I am informed that they succeed fully as well as the men. They use machinery in making the filler or "poupon," which, for common cigars, works well and rapidly. I am informed by the proprietor that he employs seventy women and girls, and ten men and boys. Thirty girls make the "poupons," and forty women put on the outer wrappers. The placing of the upper wrappers pays from seven to forty francs per thousand, averaging fifteen francs. (\$3.) A good hand makes about three thousand common cigars per week, and the average week's wages is about twenty-five francs, (\$5;) but out of this she must pay her "poupetier," (the little boy or girl who makes the center and puts on the inner wrapper,) and this costs on an average five francs per week, leaving for the week's earning twenty francs (\$4) for a good average hand. They pay thirty centimes (6 cents) per thousand for making "poupons" by machinery. One girl can make twenty-five thousand per week, earning seven and a half francs, (\$1.50.)

To those who work by the hour, he pays from 4 to 50 centimes per hour, the work-

ing time averaging ten and one-half hours in winter, and as the wages average 5 cents per hour, the earnings are 52½ cents per day. These are the wages of packers, boxers, and carters.

It has been computed that a workman in Belgium cannot, on an average, make more than 500 francs (\$100) per year. How he makes both ends meet is a profound mystery. But the wife and each child, as soon as at all able, counts as a producer. They live very poorly, not being able to indulge in even the necessities of life, such as butter and meat. The workmen have meat perhaps about once a day in the shape of soup, but for the other meals they have principally bread of the cheapest quality. Sometimes to give it a relish they sandwich two pieces of bread with a slice of apple or ginger-bread. Clothing costs very little, and nearly all wear the wooden *sabots*,\* which cost from 50 centimes to one franc. As for fuel, they never think of the luxury of a wood fire. Even the wealthy could not afford to burn wood, it being employed only by the bakers. In the table I have calculated board per month at from 80 to 120 francs, but this is for the middle class. It is somewhat remarkable that we have no "pensions" (boarding-houses) in Antwerp. Outside of the hotels there are no places where you can engage respectable board and lodging. Work-people are compelled to hire lodgings with breakfast, and go to the restaurant for luncheon and dinners. But the workman cannot afford this. He is generally married or lives with his parents, and he cannot spend more than 10 francs (\$2) per week for all. For a family of five persons the weekly wages are perhaps about 20 to 25 francs, (\$4 to \$5.) They can save but a few francs out of this.

## DRINKING HABITS.

Drinking is a terrible misfortune to the workingmen of Belgium. They not only drink beer but gin; and rum being so cheap, thousands of laborers go reeling home daily from their toil. Especially upon the docks women hawk the accursed liquid from man to man, and on Saturday nights begin the revels that often continue until the middle of Monday. The people of late are making an effort to do something to stop this scourge of the poor man, this chief source of ignorance, superstition, and crime. I regret that lack of time prevents me from placing before you the actual condition of the working-class in this country; such information should be systematized to be of use; to do this demands labor and time. \* \* \*

I am, sir, very respectfully,

JAS. RILEY WEAVER,  
United States Consul.

## WAGES IN ANTWERP IN 1872.

*Statement showing the average weekly wages paid the various classes of workmen at Antwerp during the year 1872.*

Occupation.	Weekly wages.	Occupation.	Weekly wages.
Bakers.....	\$3 30	Paper-makers.....	\$3 30
Blacksmiths.....	4 20	Plaster-ornament makers.....	6 60
Boiler-makers.....	4 80	Plumbers.....	4 08
Bookbinders.....	4 50	Painters.....	3 90
Boot-makers.....	5 40	Rattan-workers.....	3 72
Brewers.....	3 00	Rice-mills.....	3 76
Cabinet-makers.....	3 78	Salt-works.....	2 76
Carpenters.....	3 72	Saw-mill.....	4 62
Cigar-makers.....	3 90	Sewing-silk makers.....	3 00
Coopers.....	4 80	Shirt-makers.....	2 70
Distillers.....	3 36	Sperm-candle makers.....	3 60
Dyers.....	2 82	Stone-cutters.....	4 22
Engineers.....	4 80	Sugar-refiners.....	3 00
Engine-drivers.....	6 50	Tailors.....	5 10
Hair-dressers.....	3 54	Upholsterers.....	4 80
Leve-makers.....	1 98	Weavers.....	3 60
Locksmiths.....	4 20	Weavers of Antwerp silk.....	4 20
Marble-cutters.....	5 10	White-washers.....	3 60
Masons.....	3 30	Wood-carvers.....	6 30
Oil-refiners.....	3 78	Wool-washers.....	4 30
Printers.....	4 50		

\* The author paid 1½ francs (25 cents) for a pair of the best quality; common, strong sabots for working-people cost 75 centimes, (15 cents.)



## STRIKES IN BELGIUM.

HAVING devoted considerable space to a history of the strikes in England, the following condensed account of the strikes of the workmen employed in several branches of industry, chiefly in Antwerp, is presented. It was prepared by Mr. Grattan, British consul in Antwerp, who formerly occupied the same position in Boston, a gentleman whose long experience and mature judgment eminently fit him for such an investigation. The author personally visited Antwerp, but after consultation with the United States consul, Mr. Weaver, it was deemed unnecessary to make an original investigation.

The Belgian manufacturers have, in general, always endeavored to conciliate the interest and well-being of the working-class with the exigencies of the times, and it may be affirmed that within a few years past there has been a rise in wages of about 25 to 30 per cent. Nevertheless, the operatives are far from being satisfied, and their demands, on the contrary, increasing from day to day, strikes have taken place in the different industrial centers.

For some time past strikes had occurred among the workmen of various trades, with the limited object of demanding an increase of wages or a reduction of hours of labor. The masters, being unable to resist, were compelled to yield; and thus, at Antwerp the masons, shipwrights, tailors, and others have been engaged in disputing the increasing demands of their men.

The masters in these various trades, not having much capital at their command, and unable, from the nature of their business, to close their establishments, have been precluded from resisting the strike by a suspension of work. At the same time the so-called "nations," or associations of workmen who supply hands for the loading and unloading of ships, and for other commercial operations in the port of Antwerp, informed the mercantile body that they would no longer work either at night or on Sundays, although it must be stated that numerous exceptions to this general rule took place in consideration of extra pay. Strikes had also taken place in Brussels and Ghent among the mechanics, which offer much analogy to the

## STRIKE OF THE CIGAR-MAKERS OF ANTWERP.

There are in Antwerp about 45 to 50 establishments exclusively devoted to the manufacture of cigars, and employing altogether about 10,000 workmen and apprentices.

The wages of a workman amount to from 25 to 35 francs (\$5 to \$7) a week; those of the apprentices to 5 francs, (\$1,) which are deducted from the wages of the workman. These apprentices, termed "poupetiers," are children of from ten to fourteen years of age, whose business it is to make the inner roll, the workman's task being the more difficult and complicated one of completing the cigar by means of the exterior leaves. The preparatory labor thus performed by these "poupetiers" tends very considerably to diminish and simplify the work done by the men, and leads of course to a proportionate increase in the productive power of the factory; and hence it follows that the manufacturers attach great importance to having this preliminary work performed by children or apprentices, who by this means also acquire a knowledge of the trade, and become ultimately available workmen.

The rate of wages being very high in proportion, and the competition extremely active, especially in respect to low-priced cigars, it is a matter of considerable importance that the factory should be made to yield as much as possible, as it is only through large sales that a profit can be realized.

During the summer of 1871 the operatives of all the cigar-factories struck simultaneously. They had formed a considerable reserved fund, and it is also understood that they received pecuniary assistance from England and Germany. They required, independently of a reduction of the hours of labor, that the wages of the "poupetiers" should be paid by the manufacturers, without deduction from their own wages, and that the "poupetiers" should in fact be employed by the manufacturers; whereas, according to the system hitherto prevailing, every workman brought his own "poupetier" for whose work he was responsible. The effect of the change demanded would have been not only to increase the wages of the men considerably, but to relieve them of a large share of their responsibility as to the performance of the work, as it would have been in the power of the workman to attribute any imperfection in the article produced to the "poupetier" appointed and paid by the manufacturer himself. They at last went further, and their demands embraced the eventual dismissal of the "poupetiers." This pretension was entirely new, and revealed a settled purpose of diminishing the number of operatives, and preventing the instruction and training of apprentices. Their power was no longer to reside in their numbers, but precisely the contrary; for, according to their calculation, the less abundant the supply of workmen the more indispensable do their services become.

Not being able to enter into factories either in the capacity of apprentices, in consequence of the opposition of the men, nor ultimately as workmen, from the fact of their not possessing the necessary qualifications, it is evident that the enormous number of unemployed hands will constitute a real danger to social order and public security.

This movement toward the suppression of the apprenticeship system is doubtless favorable to the present operatives, who will profit by it for a time; but were the tendency to become general, and to be applied to all trades, a most formidable crisis would be the result. This danger was at once clearly recognized by the Antwerp cigar manufacturers, and they took immediate measures to resist the demand. A league was formed among the employers, and it was agreed that in case the operatives should cease work and leave any one factory, all the other establishments should be immediately closed, and hence the strike became general. The masters were quite prepared to consent to a reduction of the hours of labor and to a reasonable increase of wages, but they entirely refused to agree to the new conditions, as far as the "poupetiers" were concerned.

This state of things lasted for some weeks, but it could not be indefinitely prolonged; the workmen, subsidized by foreign agencies, stoutly refused to abate any of their pretensions; while the masters, seriously crippled in their resources by the stoppage of their works, found themselves in danger of being supplanted by foreign competition. The result was what might have been necessarily expected. Certain manufacturers, being no longer able to maintain the unequal struggle, ended by re-opening their establishments, and yielded, to a considerable extent, to the demands of the workmen. The resistance of the employers was thus weakened and disorganized, while the strike acquired increased strength, and was the better able to persist in its pretensions and demands. Some of the manufacturers endeavored to introduce workmen from Holland, in order to be enabled to resume work.

Some came, but the Antwerp operatives resorted to intimidation and violence for the purpose of compelling the intruders to return to their own country; collisions and encounters occurred, which in some cases necessitated the employment of coercive measures, but the work of intimidation had produced its effect—the Dutchmen quit the town. Other manufacturers went to Metz and to Strasburg for the purpose of engaging women to do the work, but this attempt was equally unsuccessful, in consequence of the number of the female operatives, coupled with the inferiority of their work, having always been insufficient to make up for the deficiency of male hands. The resistance of the workmen was so well organized, their resources so varied, that they were able to prolong the strike for the period of four months and a half, during which time the great mass of the operatives and their families subsisted without work, no doubt owing to assistance obtained from abroad. The result has been a slight increase of wages to the workmen engaged in some of the branches of the cigar trade, but in some of the principal establishments the "poupetiers" have almost entirely disappeared, and will not, it is said, be replaced, and the hours of labor have been reduced from 11 to 9½ hours a day.

The resistance they were for so long a period enabled to make has tended to encourage the pretensions of all the operatives engaged in the cigar-factories, and leaves room to fear that renewed attempts may ere long be made to enforce their ulterior views. These men make a good living, earning on the average about 30 francs (\$6) a week for five days' work. They desire, it is said, to obtain the same amount of pay for four days' labor.

Work was resumed in all the factories, but the Antwerp cigar trade had received a serious blow; and as far as cigars of ordinary quality are concerned, it would appear that the native manufacturers are no longer able to make headway against foreign competition.

#### STRIKE OF MECHANICS IN BRUSSELS AND GHENT.

Some time after these events, a strike of mechanics occurred in Brussels. The artisans asked for a reduction of working-hours, additional pay for all extra work, and a general increase of wages. They announced at the same time that the strike was not to be a general one, but that it would be carried on from one workshop to another, so that, while economizing their own resources, the men might compel the masters, one by one, to accept their terms.

The employers determined to resist, and decided that, upon the occurrence of a strike in any one establishment, a general lock-out should at once be proclaimed. The strike took place, and, whether from want of union among the masters, or from a feeling on their part that the demands put forth were, to a certain extent, well founded, it had a pacific solution, and ended by a compromise between the parties.

A short time later, another strike of a very similar character took place at Ghent. Thanks to the conciliatory intervention of the burgomaster of that town, a mutual understanding between the masters and the workmen, based also upon a compromise, was promptly and peaceably attained.

## IRON INDUSTRY.

The report of the Charleroi Chamber of Commerce, extracts from which appear on preceding pages, shows the extent of the various branches of the iron industry in that part of Belgium.

One of the first objects which attracted the attention of the author on his first visit to Brussels was a statue of John Cockerill, an English engineer, the founder of the works at Seraing, who received posthumous honors, although in his lifetime he obtained but a small portion of the material reward to which his eminent abilities and enterprise entitled him. The works were established in 1816, and occupy the former palace of the Prince Bishop of Liège, with the enormous constructions since added to fit it for its present purpose. The vast pile of buildings forms a little town of itself. Iron and coal are extracted from mines within its walls, which also inclose a canal and railroad leading down to the river. Blast-furnaces, puddling-furnaces, rolling-mills, and forges occupy the interior, where iron is wrought into articles of all sorts, from pen-knives up to steam-engines and locomotives, some of them of twenty-five hundred horse power. The lion on the field of Waterloo was cast at these works. Mr. Cockerill was originally in partnership with the King of Holland, and after his expulsion from Belgium in 1830, purchased his share and became sole proprietor. The works are now carried on by an association known as the "Société John Cockerill."

As these celebrated works require more than a passing notice, the following extended and more recent account than that contained in the note-book of the author, extracted from the London Engineering, is here presented :

## THE COCKERILL IRON AND STEEL WORKS, SERAING.

Since the death of John Cockerill the works at Seraing have been further enlarged, and at the present time they occupy a position perhaps second only to those of Krupp at Essen. The collieries are four in number, and are worked at depths of about 500 yards by the aid of twenty-four engines, giving a total of 900 horse-power. They give employment to 2,400 workmen, and their annual production is 350,000 tons. The company always keep from fifteen hundred to two thousand tons of coal on hand in case of a strike or of any other emergency. \* \* \* The coke-furnaces consist of four groups, comprising 143 horizontal kilns, and twelve groups, comprising 216 Appolt kilns. Connected with them are six washing-machines, and thirteen steam-engines of 168 horse-power collectively. The number of workmen is 140, and the annual production of coke is 140,000 tons.

The blast-furnaces are five in number, with stoves for heating the blast and tapping-sheds for ordinary pig-iron. In this department are fifteen engines of 480 collective horse-power, and 300 workmen, the annual yield being 55,000 tons. \* \* \* There are four more blast-furnaces now in course of construction for producing steel pigs. There are two foundries for iron and one for copper, employing 280 workmen, and six engines of 90 horse-power collectively, the annual yield being 5,000 tons. \* \* \*

The foundries are large and commodious, and are well fitted with cranes and other appliances suited for the heavy work turned out there. The castings in and about the foundries were decidedly good and clean.

In the wrought-iron department there are 75 heating-furnaces, 7 steam-hammers, 12 rolling-mills, and 55 engines of 1,900 aggregate horse-power; the workmen number 1,240, and the annual production is returned as 40,000 tons in rails, girders, bar and sheet-iron.

A very fine mill, by Collier of Manchester, was at work rolling tires for railway wheels, and a noticeable feature here was the care taken to insure the identification at any time of every tire rolled in this mill by impressing it with no less than fourteen stamps.

In the steel-works are ten Bessemer converters of from 5 to 7 tons, (six of which are in course of erection,) 16 heating-furnaces, 7 steam-hammers, 4 rolling-mills, and 46 engines of various kinds, of 3,079 horse-power collectively. This department employs 560 workmen, and turns out 17,000 tons of steel annually.

In the forges are 12 heating-furnaces, 7 steam-hammers, 70 smiths' fires, and 5 engines of 288 horse-power, the number of workmen being 200, and the annual production 1,500 tons of large and small work.

The machine-shops are well arranged and appointed, and contain 368 tools, including lathes, shaping, planing, slotting, drilling, boring, and other machines. There are two hydraulic-presses, a number of portable, fixed, and overhead-traveling-cranes, and 20 steam-engines representing 264 horse-power. The workmen here number 1,400, and the weight of the machinery produced annually is put at 7,000 tons.

In the bridge-building department and the boiler-shops are 55 drilling, bending, shearing, planing, riveting, and other machines; 3 hammers, 54 furnaces, and 11 engines of 120 collective horse-power, with 500 workmen, the annual production being 6,000 tons. The work turned out in the boiler-shops is very good, the marking-off being done in a systematic and workmanlike manner.

The iron-mines belonging to the company, by which they have secured a supply of iron for one hundred years, are not at Seraing, as already observed, but in the Liège and Namur districts, as well as in Luxembourg and Spain. They are 30 in number, and those in Belgium employ 17 engines and 800 workmen, the annual yield being 150,000 tons. The company's ship-building yard is at Antwerp, where they construct both ocean and river steamers.

It will thus be seen that, so far, at the Seraing works alone more than 7,000 hands are employed, while the engines represent considerably more than 7,000 horse-power. But this is not all, for there is a brick-field producing 15,000,000 of bricks per year, and giving work to a large number of hands, besides which there are 15 locomotives of small power for hauling purposes, and 420 workmen employed on the system of railways by which the works are traversed, and thus connected with the main railways of the country.

Besides the locomotives, there are also 80 horses employed about the works, 15 of them being in the collieries. From the annual report for 1872 it appears that there were 8,912 persons employed on the works; 254 steam-engines of 7,834 collective horse-power; the wages paid amounted to 8,500,000 francs, (\$1,700,000); the fuel consumed amounted to 350,000 tons, and the produce is put down at \$6,000,000.

It may readily be supposed that an establishment like that at Seraing does not consist wholly of workshops and machinery, but that in such a community the interest and welfare of the employés receive some consideration. This is especially so here, for houses have been built for workmen, and attached to each department of the works is a large dining-room, with a kitchen, proper arrangements being made for the custody of each workman's provisions. Similar arrangements are carried out at the collieries, where there are also baths for the use of the miners. There is likewise a dispensary, from which medicine is delivered gratuitously to all those employed on the works and their families. On the heights of Seraing, a short distance from the works, and in an elevated and healthy situation, is a hospital built by the company. It has a special physician attached to it, and will accommodate between 80 and 90 patients, the staff of nurses and attendants consisting of nuns. There is also an orphanage near the hospital, at which 45 children of both sexes are now being brought up, most of whom lost their parents during a visitation of cholera at Seraing. Besides all this, the company extends its care to the future as well as to the present welfare of the workmen, and has established a society for relief and pensions. It is not compulsory on the workmen to belong to the society, but they are expected to join it, and every inducement is offered to them to do so. The company, however, in really deserving cases, grants, out of its own funds, temporary relief and pensions to those who do not belong to the society. We thus have an establishment possessing enormous resources, and being entirely self-contained and self-supplying, and independent of external aid, except in the matters of copper and timber. The company is managed by a board composed of five members, the active supervision of the works devolving upon M. Sadoine, as director-general, who is assisted by twelve chief engineers, each of whom is placed in charge of a distinct department. The working staff have suites of offices, besides which there are arrangements for facilitating engineering studies; there is also a library and laboratory attached to the establishment. One thing which strikes the visitor to Seraing is the extreme neatness and order which prevail throughout the works, and which is rigidly insisted upon.

The author's visit to these celebrated works was inopportune, as the Count de Flanders, brother of the King of Belgium, and, as is commonly believed, a large stockholder, was on that day making an examination of the establishment, accompanied by M. Sadoine, the director-general, (on a previous attempt to personally examine the works the presence of the king caused a suspension of all business at Seraing.) From one of the chief engineers much information was obtained in regard to the extent and production of the establishment, which, however, it is unnecessary to present, as the foregoing statement is more complete.

From the author's note-book the following is selected in regard to—

*Wages.*—The men work chiefly by the piece, and their earnings, consequently, depend upon their industry. The price of puddling was stated to be 1 franc 56 centimes for 350 kilograms, being 90½ cents for a ton of 2,240 pounds, and 97 cents for 2,400 pounds, which latter usually constitutes a ton in English iron-mills. At this rate the men were said to average 7½ francs (\$1.50) per day. The price seemed remarkably low, but the gentleman who gave the information asserted that it was entirely accurate.

In the rolling-mills men earn from 5 to 6 francs (\$1 to \$1.20) per day. In machine-shops, the foremen earn from 6 to 7 francs, (\$1.20 to \$1.40,) the skilled workmen average 3½ francs, (65 cents,) and common laborers from 2 to 3 francs (40 to 60 cents) per day. In the coal-mines men average about 5 francs (\$1) per day. Hours of labor: from 6 to 8, 9 to 12, 1 to 4, and 4.10 to 6 o'clock, being nearly 10 hours per day.

Only about one-fifth of the workmen are residents of Seraing; the principal part of the remainder live in the villages of Engis and Amai, from which they come daily in the cars.

Rents in Seraing: Two or three rooms, 20 francs (\$4) per month. Price of coal: 26 francs (\$5.20) per ton of 1,000 kilograms.

The ore used in the works is chiefly brought from the vicinity of Namur.

*Engineering-shops at Antwerp.*—For the purpose of building marine-engines and other machinery, the Société John Cockerill has shops at Antwerp. If all the engines built there are equal to the powerful one which propelled a steamboat from Ostend to Dover, in a terrible sea, after the equinoctial storm in September, 1872, the author can commend them—the only thing connected with the boat or passage indicated which deserves commendation.

## LIÈGE.

Liège is finely situated at the junction of the Ourthe with the Meuse, in a fertile valley. The clouds of smoke usually seen from a distance hanging over it proclaim the manufacturing city, the Birmingham of Belgium; and the dirty houses, murky atmosphere, and coal-stained streets are the natural consequence of the branch of industry in which its inhabitants are engaged. The staple manufacture is that of fire-arms, employing at least 20,000 persons in and about the town. Liège is, in fact, one great armory, and has produced nearly a million fire-arms annually for some time past.\*

The saddlery is also very good here, and a coarse cloth is manufactured in large quantities.

There is a royal cannon-factory and a small-arm factory in the suburb of St. Leonhard.

The cause of this commercial prosperity is the presence of coal in great abundance close at hand. The mines are worked upon very scientific principles. Some of them are situated so near to the town that their galleries are carried under the streets, so that many of the houses, and even the bed of the river, are in some places undermined.

Here, as well as at other places on the Meuse, at the mines in the district of Charleroi, as well as in many parts of Germany, women are employed in various occupations, which appear, to Americans at least,

\* The number of fire-arms made at Liège in 1872 was as follows: Single-barreled fowling-pieces, 179,806; double-barreled, 154,170; barter guns, called "bords," 49,471; holster-pistols, 17,664; pocket-pistols and revolvers, 326,181; muskets, 29,841. Total, 757,133.

entirely unsuited to their sex. The author noticed that manure was swept from the streets and the markets by women, who earned thereby 30 cents per day. In the coal-mining regions of Belgium some were seen shoveling coal, others carrying coal on their backs in baskets made for the purpose. Their work is, however, now confined to the surface, and they do not, as was formerly the case in some places, work in the mines.

#### WAGES IN MAUBEUGE.

On entering Belgium from France, the rail-mills at Maubeuge, on the French side of the line, were visited, and the rates of labor ascertained. Puddlers work by the ton, and, after paying assistants, earn from 8 to 9 francs (\$1.60 to \$1.80) per day. Other workmen not skilled earn, on an average,  $3\frac{1}{2}$  francs, (70 cents.)

From farm-laborers at work in the fields cutting grain it was learned that during harvest they received 3 francs (60 cents) per day.

#### SUGAR-INDUSTRY IN 1872.

There were 174 manufactories of beet-sugar and 41 sugar-refineries in 1872. After balancing the imports and exports, there remained for home-consumption of refined sugar and treacle 19,599,731 kilograms, which is an average consumption of 4.05 kilograms, or nearly 9 pounds per capita. In regard to this industry the British minister writes:

The sugar-industry is productive of unmixed advantages and profits to Belgium. It enriches the farmer, the landlord, and the treasury; it provides good wages for agricultural laborers near their own homes during the winter months, thus counteracting the noxious temptations offered by the great towns, and promoting the interests of social order as well as of agriculture. This industry doubles the produce of the land in cattle and corn. It thus supplies man with bread and meat, as well as with sugar and alcohol.

#### BRUSSELS.

At Brussels, the capital of Belgium, French is the prevailing language; and those who are acquainted with the French metropolis will find here many familiar features which give Brussels the character of Paris on a small scale. It has its picture-galleries, its opera, its cafés, a palace-garden in imitation of that of the Tuileries, and boulevards inferior only in extent to those of its great prototype. The *Bois de la Cambre* is to Brussels what the Bois de Boulogne is to Paris. The most remarkable manufacture at Brussels is that of lace, which is celebrated all over the world. The peculiarity which distinguishes it, in addition to its fineness, is that the patterns are worked separately with the most microscopic minuteness and are afterward sewed on.

The flax employed in the manufacture grows near Hal; the best comes from a place called Rebecque. The finest variety of the manufactured article is worth its weight in gold. The persons who spin the thread for Brussels lace, and also for the French cambric of Saint Quentin, are obliged to work in confined dark rooms, into which light is admitted only partially by a small aperture; and thus, being compelled to pay the most constant and minute attention to their work, they discipline the eye, and attain the faculty of spinning the flax of that web-like fineness which constitutes the excellence of these fabrics.

Kid-gloves, which are also made at this place, may be purchased cheaper here than elsewhere.

During the Franco-German war, when trade was diverted from Paris, there was an increased demand for the products of Brussels, which con-

sequently increased in price, and there was also an increase in the expenses of living, and these rates are still continued. Brussels derives substantial benefit from the permanent and temporary residence of large numbers of English-speaking people, who purchase largely of the laces, gloves, and other products for which this "*Petite Paris*" is celebrated. To statisticians and scientists it is known as the home of that eminent man, Adolphe Quetelet\*, recently deceased, and the city where the first international statistical congress was held, (in 1853.)

#### GHEENT.

This was formerly one of the largest manufacturing towns in Belgium, and is still a place of considerable manufacturing industry, the principal product being cotton goods. It is chiefly known in this country as being the place where the treaty of peace was signed in 1815 between the United States and Great Britain. In 1804, while united to France, it was rated as the third manufacturing town after Lyons and Rouen. During the discontents which broke out in Belgium in the fourteenth century, Edward III invited to England many Flemings, who brought over with them the art of manufacturing the finer woollen cloths, previously unknown; and by their assistance the English manufactures soon surpassed those of Flanders in point of excellence. In 1801 Lieven Banens, a Fleming, brought English workmen and spinning-jennies from Manchester to Ghent, and their work became so popular that in a few years 30,000 workmen and 80 steam-engines were employed. In 1400, the city of Ghent is said to have had 80,000 men capable of bearing arms. The number of weavers at that time amounted to 40,000. Ghent is especially noted for its celebrated prison, *La Maison de France*. This prison was visited and approved by Howard, and has been the model for most of the improved penitentiaries of Europe.

Capital punishment is abolished, and as there are no colonies to which convicts can be transported, offenders are condemned to imprisonment in proportion to the atrocity of their crimes. As the rations of food are so calculated as to be barely sufficient to sustain life, the prisoners are thus compelled to contribute to their own support. According to the nature of their offenses, the proportion of earnings they receive is more or less liberal. Part is paid to them at once, with which they are allowed to purchase such articles of convenience or comfort as the governor is authorized to supply at prices fixed by tariff, and the remainder is placed in a savings-bank, in order to accumulate until the period of their liberation. Three meals a day are the allowance, and the hours of work are never more than twelve nor less than six. On his discharge from confinement, the prisoner is frequently in possession of 250 francs from the produce of his industry; and a society has been formed for the purpose of procuring the employment, and thereby guarding against the relapse into crime, of liberated convicts. The prison now contains 1,200 convicts, chiefly employed in the manufacture of linen for the use of the army.

One of the latest novelties in Ghent is the introduction of penny-banks for the children in the schools—an innovation which is already doing much to give the workmen of the future provident habits, and is being introduced into England with good results.

#### BRUGES.

Early in the thirteenth century Bruges, among the cities of the Hanseatic League was the principal mart of the English wool trade, and became the chief resort of the Lombard and Venetian traders, who brought thither the manufactures of India and the produce of Italy to exchange for the merchandise of Germany and the Baltic. Ships from Venice,

\*M. Quetelet, director of the Royal Observatory, died at Brussels, February 17, 1874.

Genoa, and Constantinople might at the same time be seen unloading in its harbor, and its warehouses were filled with wool from England, linen from Belgium, and silk from Persia. Bruges is the cheapest place in Europe in point of house-rents. A first-rate house may be had for \$90, and a very good house for \$60 per annum. The chief manufacture carried on is that of lace.

### INDUSTRY OF BELGIUM IN 1872-'73.

[Condensed from a report by the British minister, Sir H. Barron.]

The year 1872 has given the most brilliant results in most branches of industry. The prosperity which set in after the peace of 1871 became further considerably increased. Some trades, however, suffered partially from not having been able to command prices commensurate with the enhancement of materials and labor. The working-classes found in the great rise of wages ample means of comfort and savings. But their improvidence increases with their prosperity, as is proved by the actual decrease in savings-bank deposits. On the whole, the activity of all branches of trade in 1872 was rare and unparalleled.

Above all, the trades connected with the manufacture and working of iron enjoyed an exceptional prosperity. All the smelting-furnaces, iron-works, rolling-mills, machine-works, foundries, and nail-makers worked without intermission during the whole year. Many new factories were erected; many of the old ones were enlarged. At the same time the prices of iron and of its products rose without a check from the beginning till the end of the year to figures previously unknown. Pig-iron doubled in value during the twelve months. These prices left the producers good profits during the first six months; but the prices of labor and of coal rose to such exorbitant rates as to absorb finally the whole profits of the iron trade. Thus the year which began so rich in promise ended in disappointment. The masters now find that they cannot tempt buyers at the prices of iron, and cannot reduce those prices on account of the excessive cost of production. Many works have been closed and furnaces blown out in 1873, so that this trade is falling into a state of general stagnation. The present year will leave no profits to the iron-masters in general, save to such as possess collieries of their own; as, for instance, the monster establishments of Seraing, Couillet, Soheim, &c.

The zinc and lead works are passing through a real crisis. The former industry, long a speciality of Belgium and a staple element of Belgian trade, employs an immense capital and working population. It is becoming quite crippled by the gradual exhaustion of the zinc-mines of the country, especially of the once rich deposits of Moresnet. The zinc-works thus losing their main source of profits are obliged to look for supplies of ore to Spain, Italy, and Sweden, and have to struggle against the English zinc-trade which has sprung up within the last few years. The English zinc-works, now seventeen in number, producing about 18,000 tons of metal, are better circumstanced for procuring the ore at cheap rates from distant countries. This competition has run up the price of ores, while at the same time all other raw materials and labor have risen by 50 per cent., without a corresponding progression in the price of zinc.

The glass-trade began the year 1872 favorably, and continued to prosper till October. The demand was abundant; the prices were improving as well as remunerative. But here again the prices of coal and labor outstripped those of the manufactured article. Suddenly, in November, the orders from abroad ceased entirely; the warehouses became encumbered with stocks; the manufacture had to be partially suspended; prices had to be lowered; buyers continued to hold back. The trade is still passing through a crisis, owing, in addition to other causes, to the increasing competition of the French glass-blowers in the London market, aided by the superiority of their coals for this industry.

The year 1872 was, on the whole, disastrous for the woolen-trade. An extreme and unnatural prosperity had marked the whole of 1871 and the beginning of 1872. The prices of wool and of all its products were run up beyond all reasonable limits by a speculative mania. The reaction set in at the end of March, followed by an intense crisis of a year's duration, which caused heavy losses to the trade of Verviers. It subsided gradually in the spring of the present year. The factories have resumed their usual activity. The linen-trade has had a calm and prosperous year. The flax-crop of 1872 was one of the most abundant on record. The stalks grew to the unusual height of from 3½ to 4½ feet. The bulk of the crop was sold rapidly at high prices, varying from 1,400 francs to 1,800 francs per hectare. The steeping of flax in the river Lys takes a greater development every year. The year was a good one for all the trades connected



with this textile, notwithstanding the enhancement of the raw material. Some complaints emanate from the makers of flax sewing-threads that this product is losing ground in foreign markets, owing to the increasing use of sewing-machines, and consequently of cotton threads.

### COAL TRADE.

*Statement showing the movement of the Belgian coal-trade during the following years.\**

[Quantities in tons of 1,000 kilograms = 2,204 pounds English.]

	Produce.		Imports.	Exports.	Home consumption.
	Tons.	Value.			
1860 .....	9,610,895	\$107,128,299	.....	3,450,306	.....
1865 .....	11,841,703	123,896,178	76,044	4,440,488	7,090,608
1866 .....	12,774,669	151,031,574	187,137	4,853,758	8,109,000
1867 .....	16,755,829	158,252,893	461,130	4,400,364	8,616,594
1868 .....	12,296,589	133,871,637	247,749	4,659,000	7,887,338
1869 .....	12,926,894	136,116,076	239,363	4,606,946	8,575,290
1870 .....	13,697,118	148,636,823	235,250	3,964,844	9,967,594
1871 .....	13,733,176	153,803,361	204,583	4,158,569	9,779,199
1872 .....	15,658,948	208,559,308	221,890	5,630,197	10,672,694

\* In this table coke is included under the imports and exports, being reduced to its estimated original weight in raw coal, at the rate of 100 kilograms of coal to 70 kilograms of coke.

It will be seen from the above table that the production, the export, and the home consumption of coal attained their climax in 1872. The quantities raised were—

	Tons.
In the province of Hainault.....	11,616,166
In the province of Liège.....	3,653,094
In the province of Namur.....	369,688

Total..... 15,658,948

This is an amount never previously recorded, being an increase over 1871 of 1,925,772 tons. In 1872 the total exports of coal and coke exceeded those of 1871 by 891,800 tons and 259,007 tons respectively.

One extraordinary phenomenon of the year has been the shipment of many cargoes of coal to England, even to Newcastle itself.

### PRICES OF PROVISIONS, GROCERIES, ETC.

The following statement indicates with but approximate accuracy the prices of groceries, meats, and the various articles of ordinary consumption by the families of work-people. The blank form was originally prepared for the United States, and therefore the names and classifications are not in all respects suited to Belgium.

*Prices of provisions, groceries, and other leading articles of consumption, also of house-rent and board, in the towns of Antwerp and Charleroi.*

Articles.	Antwerp.		Charleroi and vicinity.		General average.
	1872.	1874.	1872.	1874.	
PROVISIONS.					
Flour:					
Wheat, superfine ..... per bbl..	\$6 00	\$7 60	\$8 30	\$8 20	\$7 50
Wheat, extra family ..... do..	9 00	{ 9 00 to 9 60	{ 8 40 to 8 80	8 80	8 87
Rye..... do..	{ 5 00 to 7 00	{ ..... to .....	4 00	12	.....
Corn-meal..... do..	{ 5 00 to 7 00	{ ..... to .....	{ 4 09 to 4 28	4 10 to 4 20	{ 4 78 to 4 78
Beef:					
Fresh, roasting-pieces .....*per lb..	17	18	17½	18	17½
Fresh, soup-pieces ..... do..	15	14	14	18	15½
Fresh, rump-steaks ..... do..	17	16	17	18	17
Corned ..... do..	11	16	17½	18	15

\* It is probable that in this and other tables the "pound" is really ½ kilogram, equal to 1.1 pounds.  
† Per pound.

*Prices of provisions, &c., in the manufacturing towns of Antwerp and Charleroi—Continued.*

Articles.	Antwerp.		Charleroi and vicinity.		General av. price.
	1872.	1874.	1872.	1874.	
<b>Veal:</b>					
Fore-quarters..... per lb.	\$0 14	\$0 19	.....	\$0 18	\$0 17
Hind-quarters..... do.	18	19½	.....	18	18½
Cutlets..... do.	18	20	.....	18	18½
<b>Mutton:</b>					
Fore-quarters..... do.	17	18	.....	16	17½
Leg..... do.	18	18	\$0 24	25	21½
Chops..... do.	16	.....	.....	25	20½
<b>Pork:</b>					
Fresh..... do.	17	18	17½	18	17½
Corned or salted..... do.	16	.....	.....	18	17
Bacon..... do.	15	.....	15½	16	15½
Hams, smoked..... do.	25	25	30	20	25
Shoulders..... do.	15	20	.....	.....	17½
Sausages..... do.	14	17	19	20	17½
Lard..... do.	20	12	10	20	15½
Codfish, dry..... do.	05	.....	10	10	08½
Mackerel, pickled..... do.	04	.....	.....	.....	04
Butter..... do.	33	38	34	35	35
Cheese..... do.	20	20	23	24	21½
Potatoes..... per bush.	75	80	.....	.....	77½
Rice..... per lb.	06	08	08	07	07½
Beans..... per qt.	09	10	08	08	08½
Milk..... do.	04	03	04	04	03½
Eggs..... per doz.	28	24	23	24	24½
<b>GROCERIES, ETC.</b>					
Tea, Oolong, or other good black..... per lb.	80	{ 60 to 1 00 }	76	80	79
<b>Coffee:</b>					
Rio, green..... do.	26	.....	23	24	24½
Rio, roasted..... do.	32	.....	27	28	29
<b>Sugar:</b>					
Good brown..... do.	15	16	.....	.....	15½
Yellow C..... do.	16	.....	15½	16	16
Coffee B..... do.	18	.....	17½	18	18
Molasses..... per lb.	.....	.....	08	09	08½
Sirup..... per lb.	05	.....	07	07	06½
Soap, common..... do.	12	.....	04	04	08½
Starch..... do.	.....	.....	10	10	10
<b>Fuel:</b>					
Coal..... per ton.	{ 8 00 to 9 00 5 00 7 00 09	{ 7 60 ..... ..... ..... .....	5 85	{ *1 60 to 6 00 }	{ 6 44 ..... ..... ..... .....
Wood, pine..... per cord.	.....	.....	.....	.....	6 00
Oil, coal..... per quart.	.....	10	.....	.....	09½
<b>DOMESTIC DRY GOODS, ETC.</b>					
<b>Shirtings:</b>					
Brown, 4-4, standard quality..... per yard.	16	{ 0 16 to 0 25 }	18	10	15½
Bleached, 4-4, standard quality..... do.	19	.....	20	15	18
<b>Sheetings:</b>					
Brown, 9-8, standard quality..... do.	34	.....	13	13	20
Bleached, 9-8, standard quality..... do.	36	{ 0 19 to 0 27 }	27	28	28½
Cotton flannel, medium quality..... do.	24	.....	21	21	22
Tickings, good quality..... do.	25	{ 0 16 to 0 20 }	15	15	18½
Prints..... do.	10	.....	.....	15	12½
Mousseline de laines..... do.	25	.....	27	28	26½
Satinets, medium quality..... do.	.....	.....	48	50	49
Boots, men's heavy..... per pair.	{ 3 00 to 4 00 }	{ 3 00 to 4 60 }	.....	4 00	3 77
<b>HOUSE-RENT.</b>					
Four-roomed tenements..... per month.	8 00	10 00	9 50	10 00	9 37½
Six-roomed tenements..... do.	20 00	5 00	14 25	15 00	13 56
<b>BOARD.</b>					
For men, (mechanics or other workmen)..... per month.	6 00	7 50	7 60	8 00	7 27½
For women employed in factories..... do.	.....	4 20	5 70	6 00	5 30

\* Per 2,000 pounds.

## PRICES OF FARM PRODUCTS AND MEAT IN BRUSSELS.

Mean price of the principal agricultural products and meat during five years, terminating with 1870.

[1 kilogram = 2.2046 United States pounds.]

Articles.	1865.	1867.	1868.	1869.	1870.
<b>Farm products:</b>	<i>France.</i>	<i>France.</i>	<i>France.</i>	<i>France.</i>	<i>France.</i>
Wheat.....per 100 kilograms..	23.11	36.92	35.22	27.61	29.34
<i>In U. S. currency.</i>					\$2.67 per 100 lbs.
Rye.....do.....	15.80	25.43	25.97	21.02	21.10
<i>In U. S. currency.</i>					1.22 per 100 lbs.
Meal.....do.....	18.44	29.89	30.35	23.69	24.52
<i>In U. S. currency.</i>					2.04 per 100 lbs.
Spelt.....do.....	17.41	25.07	25.31	20.65	20.76
<i>In U. S. currency.</i>					1.89 per 100 lbs.
Buckwheat.....do.....	18.34	24.39	25.46	25.49	24.40
<i>In U. S. currency.</i>					2.22 per 100 lbs.
Oats.....do.....	17.77	22.30	23.51	21.58	21.94
<i>In U. S. currency.</i>					1.93 per 100 lbs.
Barley.....do.....	18.25	27.14	25.54	23.13	22.49
<i>In U. S. currency.</i>					2.04 per 100 lbs.
Peas.....do.....	21.54	26.66	27.53	24.80	24.59
<i>In U. S. currency.</i>					2.94 per 100 lbs.
Horse-beans.....do.....	20.10	24.11	25.21	24.79	24.79
<i>In U. S. currency.</i>					2.25 per 100 lbs.
Flax.....do.....	27.22	38.37	38.59	38.65	38.01
<i>In U. S. currency.</i>					3.27 per 100 lbs.
Rape-seed.....do.....	45.24	38.61	36.56	39.90	45.04
<i>In U. S. currency.</i>					4.09 per 100 lbs.
Potatoes.....do.....	5.00	9.76	8.20	6.06	8.47
<i>In U. S. currency.</i>					77 per 100 lbs.
Straw.....do.....	4.98	4.29	4.63	5.73	6.37
<i>In U. S. currency.</i>					58 per 100 lbs.
Hay.....do.....	10.40	6.88	7.05	8.09	10.39
<i>In U. S. currency.</i>					94 per 100 lbs.
Hops.....do.....	225.00	230.00	135.00	112.00	88.00
<i>In U. S. currency.</i>					8.00 per 100 lbs.
Butter.....do.....	2.55	2.36	2.66	2.63	2.97
<i>In U. S. currency.</i>					27 per lb.
<b>Meat, (in Brussels market:)</b>					
Ox-beef. { On foot.....per kilogram..	.71	.83	.80	.80	.81
{ Slaughtered.....do.....	1.38	1.56	1.42	1.41	1.50
<i>In U. S. currency.</i>					13.64 per lb.
Bull-meat. { On foot.....do.....	.60	.68	.60	.69	.68
{ Slaughtered.....do.....	1.14	1.37	1.13	1.17	1.28
<i>In U. S. currency.</i>					11.64 per lb.
Cow-beef. { On foot.....do.....	.62	.73	.64	.66	.71
{ Slaughtered.....do.....	1.16	1.45	1.21	1.29	1.33
<i>In U. S. currency.</i>					12.69 per lb.
Veal. { On foot.....do.....	.97	.97	.94	.97	1.01
{ Slaughtered.....do.....	1.28	1.50	1.50	1.53	1.61
<i>In U. S. currency.</i>					14.64 per lb.
Mutton. { On foot.....do.....	.63	.58	.71	.71	.73
{ Slaughtered.....do.....	1.22	1.39	1.21	1.36	1.33
<i>In U. S. currency.</i>					12.60 per lb.
Pork. { On foot.....do.....	.82	.97	1.14	1.15	1.11
{ Slaughtered.....do.....	1.26	1.46	1.60	1.62	1.57
<i>In U. S. currency.</i>					14.27 per lb.

## EXPENDITURES BY WORKMEN'S FAMILIES.

The difficulty of obtaining from workingmen the amount expended for provisions and other necessities of life was felt in Belgium as in other countries, arising chiefly from the fact that the laboring-classes keep no account of their expenses. The following indicates a larger outgo than the ordinary workingman can afford, and it must have come from one of those large families whose aggregate earnings amount to a considerable sum; for the amount expended is in excess of the ordinary earnings of the head of a family. It is to be regretted that the weekly earnings were not stated.

*Average weekly expenditures of a family consisting of two adults and four children in Charleroi, Belgium.*

Articles.	Cost.	Articles.	Cost.
Flour and bread.....	\$3 10	Oil or other light, (in winter).....	\$0 20
Fresh, corned, salted, and smoked meats.....	2 20	Spirits, beer, and tobacco, (if any).....	00
Lard.....	40	House-rent.....	2 00
Butter.....	70	For educational, religious, and benevolent objects.....	05
Sugar.....	18		
Milk.....	16		
Coffee.....	28	Total weekly expenses.....	10 65
Soap, starch, salt, pepper, vinegar, &c.....	40		
Eggs.....	48		
Potatoes and other vegetables.....	60	Clothing per year.....	40 00
Fuel.....	50	Taxes per year.....	0 00

The following statement comes from Jumet, the seat of the window-glass industry :

The cost of necessary provisions, such as bread, butter, cheese, coffee or chocolate, apples, vegetables, soup and meat for Sundays and fête days, for a laborer's family consisting of two adults and four children, \$5 to \$6. The same for the family of a skilled workman, the number being the same, from \$8 to \$10.

#### CONDITION OF THE WORKING-CLASSES OF BELGIUM.

In addition to the facts already presented, the following condensed statements from the report of Mr. Grattan, British consul at Antwerp, in regard to the condition of the working-classes of Belgium, will be read with interest.

In considering the economical causes which militate against the well-being of the working-classes of Belgium, the following are especially to be noted:

1. The low rate of wages.
2. The want of prudence, foresight, and economy.
3. Habits of intemperance.
4. The tendency to have recourse to coalitions and strikes.
5. Certain defects in the mode of taxation and in economical science.

As respects physical causes :

6. Wars and sufferings caused by armed peace.
7. Unsatisfactory relations subsisting between masters and men.
8. Unwholesome nourishment, insalubrious dwellings, and absence of home life.
9. Defective organization of public charity.

Among the moral causes are the following :

10. Ignorance, prejudice, sophisms, and social errors.

#### LOW RATE OF WAGES.

The standard of wages, taking all degrees of labor into consideration, is undoubtedly insufficient to satisfy the legitimate wants of the laboring population, and adopting, as an illustration, the position of workmen employed in manufacturing establishments, the following facts are brought to light. The average daily wages of mill-operatives do not exceed 2 francs (40 cents) a day. Setting aside Sundays, holidays, and days on which the operative remains idle, either on account of stoppage of work, or by his own default, the working-days will hardly exceed 250 in the year, making a maximum wage of 500 francs (\$100) a year, 42 francs (\$8.40) a month, or about 10 francs (\$2) per week. Adding, in the case of a married operative, with wife and three children, 1 franc a day earned by some member of his family, a weekly budget of 16.50 francs (\$3.30) will be reached for five people. The expenses of this family, calculated at the lowest possible rate, will be the following :

Articles.	In ordinary seasons.	In dear seasons.
Bread, (2½ kilograms per day for five persons, at 30 or 50 centimes) .....	\$1 05	\$1 75
Potatoes, (3 kilograms a day, at 10 or 15 centimes) .....	42	63
Coffee and chicory, (beverage) .....	46	50
Vegetables .....	40	50
Butter or dripping .....	20	30
Clothing .....	40	40
Washing, soap, &c .....	20	20
Rent .....	40	40
Total weekly expenditures .....	3 47	4 68

There is no mention here of beer, meat, sugar, or of anything beyond the bare necessities of life. Diminish the family by one child, or add one-third even to the wages of the operative, and it still remains next to impossible that he can make both ends meet. This is by no means an exaggerated statement. There are probably 10,000 or 20,000 workmen's households in Belgium in this sad position.

## ABSENCE OF PRUDENCE, FORESIGHT, AND ECONOMY.

No economical truth is more evident or more amply proved by experience than that reckless and improvident habits indulged in by the working-classes inevitably lead to misery and ruin. No artisan can cherish the hope of raising himself in the social scale, either in a moral or physical point of view, who is unable, when circumstances are propitious, to put by some of his earnings; and there is probably not one man, however hardly dealt with by fortune, who has not at some time or other of his life had such an opportunity. A small beginning made at an early period in life may bear marvelous fruit in the course of time, and there are workmen in Belgium who can easily earn 3, 4, or 5 francs a day. How many are there of those who actually do lay by money?

It is estimated that about 200,000 workmen in this country are certainly in receipt of the lowest of the above-mentioned rate of wages, and yet probably not one-fifth of them are in the habit of saving money. It is stated that only about 40,000 workmen in the whole country have accounts in the various public or private savings-banks, or hold public securities.

A great cause of misery to the workingman is the loss of one day's work in the week, Monday being almost invariably an unemployed day in Belgium. May not the loss of this one day's wage suffice to put a stop to all possibility of saving, or even in some cases be sufficient in itself to throw a family into inextricable difficulties?

## TENDENCY TO HAVE RECOURSE TO STRIKES.

According to a very prevalent opinion, the almost invariable result of coalitions and strikes on the part of the working-classes has been to aggravate their misery and distress. Workingmen, however, do not, as has been seen, admit these arguments; and, following the lead of the English trades-unions, strikes and combinations have acquired of late a wide-spread and cosmopolitan character. It was said, it is true, that at the workmen's congress held at Brussels in September, 1868, an opinion unfavorable to strikes had prevailed in the assembly; but this was not the fact; the following declaration, among others, relative to strikes, having been unanimously adopted by the congress:

"The congress declares that strikes, though not an infallible mode of remedying the evils to which the working-classes are exposed, are nevertheless, in the present situation of capital and labor, a necessity."

## UNSATISFACTORY RELATIONS BETWEEN EMPLOYERS AND THE EMPLOYED.

One of the greatest drawbacks to the prosperity and well-being of the industrial classes consists undoubtedly in the absence of good-will and confidence between them and those by whom they are employed, particularly in the great industrial centers. This especially applies to the case of large joint-stock companies, where the ties existing between the operatives and the managers are of the slenderest description. So many men are wanted to-day, and they can be supplied at a moment's notice. When their services are no longer required, they are turned off. What becomes of them? They go to the "estaminet," and there their schemes of resistance are concocted, disturbances are organized, and riots planned. Such is probably the real history of the disturbances in Ghent, the Borinage, Marchiennes, Chatelineau, and Seraing. Independently of the evil influences exercised by the leviathan establishments above referred to, M. Danby does not hesitate to throw the immediate responsibility of this unhappy state of things upon the middle and higher classes, and the spirit of speculation pushed to the extreme which characterizes the present period. The apparent disregard of the rights and interests of others involved in the reckless pursuit of wealth has embittered the feelings of those who have been its victims, and a character of extreme gravity, fraught with much future danger, has been imparted to these recent popular outbreaks.

## UNWHOLESOME NOURISHMENT—INSALUBRIOUS DWELLINGS—WANT OF HOME LIFE.

Workingmen in this country are, as a rule, very ill-housed and badly fed. Improvidence and carelessness combine to keep them and their families in a position of inferiority and discomfort, if not of absolute misery and want. A little more experience and knowledge of household economy on the part of the female population might avert in this respect an infinity of mischief. The evils of bad cookery have formed the subject of many a bitter diatribe, but they cannot be too frequently pointed out and insisted upon, especially in connection with the industrial classes, to whom an economical and skillful employment of their slender stores is so important a consideration. That the well-being of all classes of society depends, to a very considerable extent, upon good and wholesome nourishment cannot be contested; but it is not a little surprising

that so small a share of attention is in reality bestowed upon the proper education of women in the various matters connected with alimentation and the preparation of food. Society at large suffers more seriously from this cause than persons who have not devoted some consideration to the hygienic questions involved in the matter would be disposed to believe.

Suitable and convenient habitations for the working-classes, at reasonable rents, are of the utmost importance also to their well-being. Fortunately this want has been partly met at Antwerp, and the lodging-houses erected of late years have contributed greatly to the comfort of their occupants, besides affording a fair interest upon the capital invested in these beneficent enterprises. It is to be inferred that commodious lodgings may have a tendency also to develop among the working-classes a greater love of home life, ("l'esprit de famille,") the absence of which has been so often and so justly deplored in this country.

#### HABITS OF INTEMPERANCE.

Among the causes which tend to aggravate the situation of the working-classes, intemperance may be placed in the first rank. The allurements of the estaminet, (public house,) combined with the cheapness of spirituous liquors in this country, form an attraction which the majority of workmen are unable to resist, and hence flow incalculable dangers and mischief to themselves and their families. All efforts to extirpate or modify this evil have hitherto proved fruitless. According to calculations which have not been contradicted, it is estimated that there are about *one hundred thousand licensed public houses in Belgium, for the supply of five million inhabitants*, a proportion which is generally exceeded in the industrial centers. The evils resulting from this state of things were fully exposed in the report submitted to the House of Representatives during the session of 1867-'68.

It appears, however, that nothing was done to check this terrible evil, for in a report to the British government, dated Brussels, December 30, 1873, Sir H. Barron says in reference to this subject:

Nothing whatever is done to check the consumption of spirits, a main source of pauperism, crime, disease, and insanity. On the contrary, the authorities vie with each other in multiplying kermesses and festivals of all kinds, which are mere excuses for dissipation and drunkenness.

This vice more than keeps pace with the national prosperity, and completely prevents any improvement of the working-class. No temperance societies, licensing acts, or liquor-laws exist. The authorities shut their eyes to all abuses and disorders.

The number of drink-shops goes on increasing in the following ratio:

1866.....	94,671
1867.....	95,754
1868.....	96,990
1869.....	99,214
1870.....	100,763

There is now one liquor shop for every forty-eight inhabitants. The official record of the average home consumption of spirituous liquor (proof-spirit) for the ten years 1861-1870 was 396,152 hectolitres = 8,715,344 gallons, being 1.80 gallons per head of the population per annum. This large figure is, however, really much below the truth, as the quantity produced is, as shown above, certainly much understated.

## LABOR IN SWEDEN AND NORWAY.

The following information in regard to cost and condition of labor in Sweden and Norway is condensed from a report made to the Department of State by Hon. O. C. Andrews, minister resident of the United States at Stockholm, under date of September 24, 1873:

In my report of May 10, 1872, I had the honor to report that there had recently been in Sweden an almost general increase of the wages of mechanics 25 per cent. Since then a similar rise of wages has extended to about all other industries. In some, in the immediate neighborhood of the lumber-shipping ports, it has amounted to upward of 100 per cent. Substantially the same may be said as to Norway.

The principal causes of this increase of wages have been the excellent agricultural crops for four successive years; the remarkable rise in the prices of iron and lumber, and consequent increased activity in those industries; the emigration, which from both these countries to the United States has reached in the aggregate about 150,000 persons; the demand for labor in constructing new and extensive lines of railway, and the influence of workmen's organizations. As the importance of the labor question seemed to render it proper that I should take more than ordinary pains to collect reliable data on the subject, I began, personally, the collection of facts bearing on the matter as early as January last, since when I have visited a large number of leading industrial establishments, as well as dwellings of working-people in various parts of Sweden and Norway. Although both of these countries annually publish very thorough statistics—Sweden having annually collected and published population statistics for a century and a quarter past—there are none in either country as to wages of labor, except in Sweden as to the single industry of agriculture, which fact has made it necessary to resort to special and personal investigation. I now have the honor, therefore, to transmit herewith—

1. A table showing the wages of labor in Sweden in Swedish money, and also in money of the United States.

2. A table showing the prices of the necessities of living, which, in the main, will answer equally well in respect to Norway; also to submit some facts and remarks on the condition of the industrial classes of Sweden and Norway, separately as to each country.

## WAGES IN SWEDEN.

Table showing the rates of wages in Sweden (in Swedish and in United States money) in 1873.

[NOTE.—3.76 rik-dollars (3 rik-dollars and 76 öre) are equivalent to \$1, United States gold. Gold dollars of the United States sell in Stockholm at 3.75 rik-dollars each; but in buying them at a bank in Stockholm one must pay 3.83 rik-dollars. Exchange on New York, payable in gold, is at the same rate, namely, 3 rik-dollars and 83 öre for \$1. Where Swedish money is reduced to money of the United States in this and the following tables, as well as in the text, I have assumed 3.76 rik-dollars to be equivalent to \$1 in gold.]

Occupation.	Number of hours of actual labor.	Wages per day.		Remarks.
		Swedish money, (rik-dollars.)	United States gold.	
Agriculture:				
Best male hands { Winter. 7 to 10		1. 75	\$0 46	
{ Summer. 12 to 13		2. 50	66	
Bakers:				
Best .....	12	2. 00	53	Free board and lodgings.
Average .....	12	1. 50	40	Free board.
Basket-makers:				
Best .....	10	3. 00	80	
Average .....	10	1. 25	33	
Best-sugar operatives:				
Best .....	12	1. 75	46	Technical director, \$975 a year.
Women .....	12	1. 00	26	Engineer, \$530 a year.
Blacksmiths .....	11	3. 00	80	
Bone-meal-factory hands .....	11	1. 50 to 2. 50	\$0 40 to 66	Free rent and fuel.
Book-binders:				
Average .....	11	3. 00	80	
Women, best .....	11	1. 40	37	
Book-keepers, average .....				\$525 to \$800 a year; cashiers, \$1,000 to \$1,600 a year.

Table showing the rates of wages in Sweden, &amp;c.—Continued.

Occupation.	Number of hours of actual labor.	Wages per day.		Remarks.
		Swedish money (rix-dollars.)	United States gold.	
<b>Boot and shoe makers:</b>				
Best .....	12	3.00	\$0 80	Generally by piece.
Average .....	12	2.50	66	
Apprentices .....	12	2.00	53	
Women, with machine .....	12	2.50	66	
<b>Brewers:</b>				
Foreman .....	12 to 13	4.00	1 06	} Paid monthly; free room, fuel, lights, and 8½ bottles beer daily.
Common .....	12 to 13	2.00	53	
<b>Butchers.</b>				\$80 a year; free room and washing.
<b>Cabinet-makers:</b>				
Best .....	10	2.86	76	} Generally work by hour; several hands at one shop save 200 rix-dollars a year.
Average .....	10	2.31	62	
Apprentices .....	10	2.00	53	
<b>Candle (stearine) makers</b> .....	12	2.00 to 3.00	53 to 80	} Nearly all free rent; the work-master has \$900 a year and percentage.
<b>Candle (stearine) women</b> .....	12	1.00 to 1.25	26 to 33	
<b>Carpenters, house.</b> .....	12	3.00	80	Generally by hour.
<b>Carvers in wood</b> .....	10	5.00 to 6.00	1 32 to 2 12	
<b>Carriage-makers:</b>				
Foreman .....	11	3.00	80	
Average .....	11	2.50	66	
<b>Cigar-makers:</b>				
Finishers .....	11	4.00	1 06	By piece; free allowance of cigars to males.
Average .....	11	3.30	87	
Boys .....	11	.75	20	
Women. { Best .....	11	3.00	80	
{ Average .....	11	1.25	33	
<b>Chimney-sweeps, foreman.</b> .....				\$132 a year, board and lodgings; best boys, \$53 a year, board and lodgings; boys under 14, only clothes, board, and lodgings.
<b>Cloth (woolen) factory weavers:</b>				Foreman, \$900 a year; overseers, \$265.
Women .....	11	.84 to 1.33	22 to 35	
Girls .....	11	.66	16	
Boys .....	11	.75	20	
Spinners, male .....	11	2.00	53	
<b>China-ware factory:</b>				
Best men .....	10½	7.00	1 85	Those with families, free rent and doctor
Average .....	10½	2.25 to 4.00	66 to 1 06	
Boys .....	10½	1.00	26	Rorstrand factory.
Women .....	10½	1.50 to 3.00	40 to 80	
<b>Confectioners:</b>				
Best .....	11	1.66	44	} Free board and lodgings.
Average .....	11	1.45	41	
<b>Coopers:</b>				
Best .....	12	6.00	1 59	
Average .....	12	3.00	80	
<b>Coppersmiths:</b>				
Best .....	12	3.60	96	
Average .....	12	3.00	80	
<b>Cotton-spinners, male</b> .....	11	2.00	53	Free doctor and medicine; wages likely to rise 20 per cent.
<b>Cotton-weavers:</b>				
Females .....	11	1.33	35	
Over 18, average .....	11	1.00	26	
Girls under 18 .....	11	.65	17	
<b>Door and sash makers.</b> .....	12	3.50	93	
<b>Dyers:</b>				
Foreman .....	11	4.16	1 10	
Journeyman, average .....	11	2.50	66	
<b>Engineers on sea-steamers</b> .....				\$320 to \$530 a year and board.
<b>Firemen on sea-steamers</b> .....				\$10 to \$12 per month and board
<b>Flower (artificial) makers.</b> .....		1.00	26	Females paid by the month.
<b>Furriers:</b>				
Men .....	12	3.00	80	
Women. { Best .....	12	2.33	62	
{ Ordinary .....	12	1.33	35	



Table showing the rates of wages in Sweden, &amp;c.—Continued.

Occupation.	Number of hours of actual labor.	Wages per day.		Remarks.
		Swedish money, (rix-dollars.)	United States gold.	
Gas-makers :				
Foreman .....	12	6.00	\$1 59	
Stokers .....	12	2.50	66	Free doctor and medicine.
Mechanics, fitters, &c. ....	12	2.50 to 3.00	60 to 80	Free doctor and 13 cents a day when sick.
Common laborers .....	12	1.75	46	
Gilders :				
Workmen .....	10	2.00 to 2.66	53 to 71	
Foreman .....	10	3.25	86	
Glass-makers :				
Workmen .....	10	5.00	1 32	} Free rent, fuel, and lights.
Common laborers .....	10	1.00	26	
Glaziers .....	11	2.00 to 2.50	53 to 66	Mostly by piece.
Glycerine-factory :				
Men .....	12	2.00	53	
Women .....	12	1.25 to 1.50	33 to 40	
Gold and silver smiths :				
Best .....	11 to 12	3.35	90	
Average .....	11 to 12	2.50	66	
Foreman .....	11 to 12	3.35	90	Free rent and 6 per cent. of profits.
Hair-cutters .....	11	1.66	43	Paid by month; free board and lodgings.
Harness-makers .....	11	2.50	66	
Hat-makers :				
Best .....	11	5.00	1 32	
Average .....	11	3.00	80	
Female assistants .....	11	1.60	41	
Instrument-makers :				
Chemical .....	10	2.00 to 8.00	53 to 2 12	
Surgical .....	10	4.00 to 5.00	1 06 to 1 32	Free rent.
Apprentices .....	10	2.00	53	
Iron-foundry :				
Best hands .....	12	3.00	80	
Average .....	12	2.00	53	
Common molders & found-ers .....	12	2.75	72	Free lodging.
Iron-production :				
Master at refining-heater ..	12	6.60	1 75	
Master at rolling-mills ..	12	4.75	1 26	
Master at blast-furnace ..	12	3.25	86	
Master-mechanics .....	12	5.00	1 32	
Workmen at blast-furnace ..	12	2.00	53	} Lodgings and fuel free.
Workmen at roasting-furnace ..	.....	2.00	53	
Workmen at rolling-mills ..	.....	2.40	63	
Smiths .....	.....	2.37	62	
Laborers, common .....	12	1.25 to 2.00	33 to 53	
Lamp-lighters, (60 lamps each) ..	.....	2.00	53	
Lithographers :				
Best .....	9	5.00	1 32	
Average .....	9	2.00	53	
Stevedores .....	12	4.44	1 18	Are paid 37 öre (10 cents) per hour.
Lumbermen :				
Cutting trees in winter ..	.....	2.00	53	
In saw-mills, average .....	12	3.00	80	Free rent and doctor.
Machinists :				
First-class .....	10	3.25	86	
Second-class .....	10	2.75	73	
Apprentices .....	10	1.25	33	
Masons :				
Bricklayers { Best .....	12	4.25	1 12	By hour.
{ Average .....	12	3.60	93	
{ Tenders to ..	12	2.50	66	
Women tenders .....	12	1.50	40	
Plasterers .....	12	.....	.....	4 to 7 cents per square foot.
Masters of steam-vessels :				
First .....	.....	.....	.....	\$13.95 to \$16 per month and 5 per cent. of gross earnings.
Second .....	.....	.....	.....	\$33 to \$80 per month and 8-10 per cent. of net earnings.
Third .....	.....	.....	.....	\$36.50 to \$40 per month and no per centage of earnings; generally small vessels.

Table showing the rates of wages in Sweden, &amp;c.—Continued.

Occupation.	Number of hours of actual labor.	Wages per day.		Remarks.
		Swedish money, (rix-dollars.)	United States gold.	
<b>Mates:</b>				
Fish steam-coasters.....				\$16 per month and 1 per cent. of net earnings.
Fish sea-voyages.....				\$26.50 per month.
Second.....				\$20 to \$22 per month.
<b>Masters of sailing-vessels.....</b>				\$13.25 to \$16 per month and 5 per cent. of gross earnings.
<b>Mates of sailing-vessels:</b>				
Fish.....				\$20 to \$21 per month.
Second.....				\$13.25 to \$16 per month.
<b>Match-factory:</b>				
Skilled hands.....	11	4.00	\$1 06	And free rent.
Ordinary hands.....	11	2.00	80	
Women.....	11	1.25	33	
Boys { 18 years old.....	11	1.25	33	
{ 14 years old.....	11	.80	21	
{ 12 years old.....	11	.60	16	
<b>Musket-factory:</b>				
Skilled hands.....	11	4.00	1 06	
Average hands.....	11	2.50	66	
<b>Painters:</b>				
In fresco.....		6.00	1 59	
Common, first-class.....	11	4.00	1 06	
Average.....	11	3.00	80	
Apprentices.....	11	1.00	26	
<b>Photographers.....</b>		4.00 to 8.00	1 06 to 2 12	
<b>Piano-makers.....</b>				About the same as cabinet-makers.
Planing and molding with machine.....	12	2.00	53	Free doctor.
<b>Printers:</b>				
Compositors { Best.....	10	5.00	1 33	
{ Average.....	10	3.00	80	
On machine { Best.....	10	4.00	1 06	
{ Average.....	10	3.00	80	
<b>Rope-makers:</b>				
Best.....	11	3.00	80	
Average.....	11	2.50	66	
Boys under 18.....	11	1.75	46	
<b>Saddle-makers.....</b>	11	2.00 to 2.50	53 to 66	Also \$10 a year clothing.
<b>Seamen:</b>				
On steamers.....				\$8 to \$10 per month and board.
On sailing-vessels.....				\$12 to \$14 per month and board.
Ordinary.....				\$8 to \$10 per month and board.
<b>Shirt-makers:</b>				
Women { Best, with machine.....	10	3.33	90	One-half of the operatives in a factory of 400 sew at home.
{ Average, with machine.....	10	2.33	64	
{ On collars, average.....	10	2.75	73	
<b>Shirt-sewing, by hand:</b>				
Over 16 years. { Best.....	10	2.20	58	
{ Average.....	10	1.00	26	
Girls under 15 years.....	10	.50 to .80	13 to 21	Generally at home.
<b>Ironers:</b>				
Best.....	10	2.00	53	
Average.....	10	1.58	41	
<b>Servants:</b>				
Male.....				20 to 60 rix-dollars (\$5.30 to \$16) per month and board.
Female.....				8 to 30 rix-dollars (\$2.14 to \$8) per month and board.
<b>Ship-builders, iron:</b>				
Most skilled.....	11	5.00	1 32	
Less skilled.....	11	4.00	1 06	
Second-class.....	11	3.00	80	
Shop-girls, best.....		2.00	53	Paid by month.
<b>Silk-factory:</b>				
Work-master.....	12	5.00	1 32	And free rent.
Weavers, women { Best.....		3.00	80	Hand-loom, by piece.
{ Average.....		1.33	35	Hand-loom, by piece; free doctor.
<b>Stone-cutters:</b>				
Letterers on monuments.....		5.75	1 51	
Best cutters.....	12	4.50 to 5.50	1 18 to 1 32	Generally by piece.
Average on granite.....	12	3.50	93	

Table showing the rates of wages in Sweden, &amp;c.—Continued.

Occupation.	Number of hours of actual labor.	Wages per day.		Remarks.
		Swedish money, (rix-dollars.)	United States gold.	
Stone-blasters.....	12	3.75	\$1 00	
Stove-makers, earthen:				
Artistic hands { Summer.....		10.00	2 64	
{ Winter.....		4.00	1 06	
Average workmen.....	11	3.60	80	
Women { Summer.....	12	1.00	26	
{ Winter.....	9	.80	21	
Straw-hat makers:				
Foreman.....	11	5.00	1 32	
Average male hands.....	11	4.00	1 06	
Women { Best, by piece.....	11	3.00	80	
{ Average.....	11	1.66 to 2.00	44 to 53	
Tailors:				
Best cutters.....				\$400 a year.
Male sewers.....	12	3.00	80	
Women, with machine.....	12	1.25	33	
Tannery:				
Tanners.....	11	3.00	80	
Common laborers.....	11	2.00	53	
Tin-platers:				
Best.....	11	5.00	1 32	
Second-class.....	11	3.00	80	
Boys.....	11	1.25	33	
Women.....	11	1.00	26	
Trunk-makers.....	12	2.33	61	
Upholsterers.....	12	2.00 to 4.00	53 to 1 06	
Washing and ironing.....				Finest shirts, per dozen, 3.60 rix-dollars, or 96 cents; ordinary shirts, per dozen, 3 rix-dollars, or 80 cents; miscellaneous, per 20 pounds, 3 rix-dollars, or 80 cents \$4.25 a year.
Wine-factory:				
Work-master.....	10½	2.00	53	
Average men.....	10½	1.25	33	
Women.....	10½	1.25	33	

Statement of the standard retail prices, in United States coin, of subsistence and other necessities, at Stockholm, for the year 1873.

Articles.	Value.	Articles.	Value.
Flour, best.....per bbl.	\$11 00	Tea.....per lb	\$1 10
Wheat-meal.....per 20 lbs	70	Soap.....do	11
Rye-flour.....do	53	Starch.....do	12
Rye-meal.....do	40	Stearine candles.....do	20
Oats grits:		Kerosene oil.....per gall	66
Swedish.....per lb	4	Wood:	
English.....do	6	Birch, in common use.....per cord	8 00
Barley grits.....do	3½	Pine and spruce.....do	5 50
Rice, Carolina.....do	8	Shirting:	
Potatoes.....per bush	60	Bleached.....per yd	20
Pease.....per qt.	6	Unbleached.....do	11
Fresh beef, mutton, veal, and pork.....per lb	14	Calico.....do	14
Salt pork, American.....do	14	Linen.....do	45
Ham, smoked.....do	20	Mixed half wool and cotton checkered cloth, in common use for working-women's dresses.....per yd	35
Lard.....do	16	Black woolen cloth, double width, suitable for trousers and coats.....per yd	2 65
Baltic herring, fresh.....per 20	40	Shoes:	
Salt herring.....per lb	4	Plain, but durable, for women.....per pair	1 75
Salt codfish.....do	6	For ladies.....do	4 00
Poultry, undressed.....do	35	Boots:	
Butter.....do	28	Plain, but durable, for workmen.....do	3 75
Cheese.....do	20	For gentlemen.....do	5 50
Milk.....per qt.	6	White woolen undershirts.....each	2 50
Eggs.....per doz	20	White woolen drawers.....per pair	2 50
Sugar:		Woolen stocktugs.....do	53
Lump.....per lb	14	House-rent, two rooms, for working people.....per month	4 00
Brown.....do	10		
Molasses.....per qt.	12		
Ginger.....per lb	37		
Coffee, best Java.....do	27		

## WAGES AND THE PURCHASE-POWER OF MONEY.

It seems natural and just that a man's labor should be worth, and that his wages should be, as much as, with economy and prudence, will comfortably maintain himself and family, enable him to educate his children, and also to lay by enough for his decent support when his laboring powers have failed.

Whether wages are high or low, of course, depends not on their absolute amount, but on their purchase-power. If in one country a dollar will go as far in procuring necessities as two dollars will in another, other things being equal, then a dollar a day in the first country is equally as high wages as two dollars a day in the latter country.

## AGRICULTURAL LABOR.

As to agricultural labor, it may be said that in 1871 the average wages of best workmen by the day in summer was 1 rix-dollar and 85 öre, and in winter 1 rix-dollar and 18 öre; and of best female hands, in summer, 96 öre, and in winter, 64 öre. During the past three years agricultural wages have risen on an average 36 per cent. Assuming that they have risen 25 per cent. since 1871, the average day-wages for best male hands in summer would now be 2 rix-dollars and 31 öre, (61 cents,) and in winter 1 rix-dollar and 45 öre, (38 cents; ) of best female hands, 1 rix-dollar and 20 öre (31 cents) in summer, and 80 öre (21 cents) in winter. It is common to employ men, women, and children in agricultural labor. Sometimes a dozen or twenty such hands will be seen at work together in a field not larger than twenty acres. Sometimes a gang, one might say, of women may be seen hoeing all abreast, with a male overseer standing in front and facing them. And here I may say that generally, in Sweden, the earnings of workmen's wives will average 150 rix-dollars each a year, though, of course, in most cases, for a woman to work out who has young children must be at a sacrifice of true domestic economy.

I estimate the average wages of mechanics to be 73 cents per day, equal to \$4.38 per week, or for a year of 300 working-days, 825 rix-dollars (\$220.)

## COST OF LIVING.

As to the expenses of living, there are no published statistics which go into details. The average value of the allowance of subsistence among agricultural employers for a family, say of man, wife, and three children for one year, is 283 rix-dollars, (\$75.26.) But this would furnish too meager a diet to admit of its being adopted as a standard. To bring it up to what is reasonably nourishing, there should first be added to it 25 per cent. on account of increased prices in towns, which would make it 353 rix-dollars and 75 öre. There should then probably be added the retail value of the meat-ration of a garrison soldier for a year, namely, 85 rix-dollars and 31 öre, which would bring the sum up to 439 rix-dollars and 6 öre, which must cover all expenses of provisions and groceries.

The average value of the ration of a garrison soldier at government price is, as above stated, 56.12 öre (14.9 cents) per day, or 204 rix-dollars and 47 öre (\$54.47) per year. (The commutation value of a single ration in the United States Army during the civil war was 30 cents.) Allowing that the family of a workman, wife and three children, will consume double such a ration in a year, the expense of so much subsistence at government price would be 409 rix-dollars and 67 öre, (\$108.94.) But a workman would need to exercise extraordinary foresight, and buy his subsistence at wholesale, in order to get so much for that sum of money. If we allow, then, for such a family—

	Rix-dollars.	
For subsistence.....	409. 67	\$108 94
House-rent.....	140. 00	37 33
Clothing.....	130. 00	34 50
Fuel.....	70. 00	18 25
Miscellaneous.....	50. 00	13 25
Total.....	799. 67	212 27

We have, say, 800 rix-dollars as the total annual living-expenses of a family of five members. This would answer tolerably well out of Stockholm, but here one should add the sum of 60 rix-dollars on account of rent, in order to procure two reasonably good rooms beside a small kitchen. This would then make an allowance for the expenses of living in Stockholm, for such a family as above mentioned, 860 rix-dollars, which, with prudent management, would be sufficient to carry them through the year in a tidy and wholesome manner. But the wages of an average mechanic having constant employment will, as we have seen, amount to but 825 rix-dollars per year, so that if he has a family, they will have to live sparingly in order to get along. As a general rule, the

families of workmen do not spend 800 rix-dollars, nor even perhaps 700 rix-dollars, for the necessities of living. On the whole, considering present prices and the acknowledged scarcity of suitable dwellings for working-people, wages cannot be considered as more than living wages for men with families. A single man, however, can make good savings, and ought to lay up money enough for a good support when he becomes unable to work.

The larger mechanical and manufacturing establishments usually clear from 10 to 25 per cent. on their capital.

#### CERTAINTY OF PAYMENT OF WAGES.

Wages are paid with certainty, and either weekly or semi-monthly. Not unfrequently they are paid on a Friday, partly that the family can have the money for Saturday's market, and partly to prevent the money from being dissipated away by the workmen on Sunday. In trade the cash-system generally obtains. In the larger towns it is the same here as everywhere else, that a certain class will pay cash at a shop till they can manage to run up a bill, and then will go to another shop to trade. Of course all such losses compel shopkeepers to charge higher prices, and the dishonest purchaser, in the long run, gains nothing by his tricks.

As to the legal collection of debts, if one desired, for instance, to collect a demand of 20 rix-dollars, he would, in the country, sue before the "härad-rätt," or district court, or before the provincial executive court, and in a city, before the city executive court.

It is not requisite that an attorney be employed, though it is more convenient to have one. His charges in a city would be about 10 rix-dollars, (\$2 65). In the city a defendant must answer in eight days; in the country, fifteen days, or three weeks if out of the district. Appeal to a higher court may be had in the smallest matter. Fees of witnesses depend on their occupation, and vary from 1 to 10 rix-dollars a day. Everything, except actual or necessary clothing, beds, and necessary tools, can be taken on execution. Half the salary of an official may be attached in the hands of the governments. Imprisonment for debt is allowable, but not often resorted to. A poor debtor can swear out.

#### CLOTHING.

As to clothing, it may be said, in brief, that the Swedes take a pride in being tidily dressed, and that the clothing they wear is generally serviceable. In the provinces popularly known as Dalecarlia the peasantry of each parish have a different and fanciful style of dress. A sort of blouse worn by women, and coats worn by men, are trimmed with sheep-skin with the wool on. The men there still adhere to the fashion of tight breeches. Wooden shoes are worn a good deal by working-people in the country for every day, also leather shoes soled with wood. A common article for dresses among working-women is a home-woven cloth of half wool and cotton. There is a large shoddy manufactory at Stockholm.

Operatives at most of the larger establishments have either a voluntary sick-fund of their own, or else a small amount of their monthly wages is retained by their employers for a fund for the payment of a doctor for medicine, and if need be the expenses of burial. At the Stockholm gas-works the men have their own fund, to which they contribute 1 rix-dollar a month. In case of sickness, a man receives 6 rix-dollars a week during six weeks, and after that time 4 rix-dollars a week, if he is sick so long, and in case of death, 100 rix-dollars for funeral expenses. The book-binders of Stockholm have an old fund, so that by contributing 5 rix-dollars per year, a member can receive 5 rix-dollars a week when sick, and 50 rix-dollars for burial. It does not appear to be usual to incur extravagant expense for funerals.

There is still a great supply of labor of certain kinds, and especially of house-servants. People in rather humble life employ one or more servants; and probably the average of families do not pay for a house-maid over 75 rix-dollars (\$20) a year and board. The 24th of October is the usual time of changing help held by the year.

In the summer the number of hours for actual work often exceeds twelve per day. For the whole year eleven hours per day is probably the average of actual work. There is a desire among workmen to have the time reduced. The tendency to work by the piece or by the hour is rapidly increasing. Some employers have, with advantage, introduced the practice of allowing their workmen a percentage of the whole earnings; for example, as extra compensation, to divide 10 per cent. of the gross earnings among their hands. The leading printer in Stockholm pays compositors 30 öre per 1,000 ems, and every three months adds 5 per cent. additional on what has been earned.

The Swedish "Patriotic Society" makes numerous awards of medals every year to persons in humble life who have performed many years of exemplary service.

As the most of the railways in Sweden belong to the state, there are many men thereby employed by the government in their construction.

## SAVINGS.

The Swedes are naturally inclined to free living, and are less sparing than most of the other continental nationalities. The practice of saving is, however, much on the increase, and is undoubtedly considered among the more intelligent as a moral duty. The first savings-bank started in Stockholm was in 1823. The whole number of such banks in Sweden in 1865 was 186. In 1870 they had increased to 235. The number of new depositors during 1870 was 66,020; the amount deposited during the year was 19,409,657 rix-dollars; the amount taken out, 12,033,056 rix-dollars. At the end of that year 354,357 persons had deposits in the savings-banks amounting to 57,376,611 rix-dollars, of which 276,863 rix-dollars were in deposits (the whole amount the party had on deposit) of from 1 to 10 rix-dollars, belonging to 80,477 different depositors; 631,624 rix-dollars in deposits of from 10 to 25 rix-dollars, belonging to 38,410 depositors; 1,119,479 rix-dollars in deposits of from 25 to 50 rix-dollars, belonging to 30,825 depositors; 2,363,874 rix-dollars in deposits of from 50 to 100 rix-dollars, the largest proportion being in deposits of upward of 500 rix-dollars. It is estimated that at the end of the present year the amount on deposit will be 80,000,000 rix-dollars.

## MEANS TO ENCOURAGE SAVINGS.

There is an association in Stockholm called the Fosterlands Union, for the purpose of encouraging savings. During the few years it has been in operation it has gratuitously circulated about twenty thousand pamphlets and circulars, explaining the advantages of even small savings. It also awards premiums in money for exemplary permanent savings, such as investments in the annuity and capital institution of Stockholm, which has branches in various parts of the country. In this institution, for example, if 25 rix-dollars be deposited at the time of a person's birth to procure him a life annuity when he arrives at the age of fifty-five, it will yield him from that age as long as he shall live 100 rix-dollars a year. In 1872 the Fosterland Union awarded 1,056 premiums, amounting in all to 2,884 rix-dollars, for exemplary investments in this annuity institution; that is to say, for the most regular and praiseworthy deposits of working-people. The highest premium awarded was 75 rix-dollars. No premium has been given for deposits amounting in any year to over 500 rix-dollars; and hereafter none will be given for deposits amounting to over 200 rix-dollars in a year.

Savings-banks can be established in any province (the Swedish counties, being large, are habitually called provinces) by the consent of the governor of that province. The depositors or shareholders have right to choose the directors of the bank, and there are no other guarantees of security. The government appoints one director or inspector of the annuity institution of Stockholm, but the other members of the board of direction are chosen by the investors. There are no other guarantees of security.

The following are a few of the instances of savings that have come under my knowledge:

The operatives at the Gustafsberg china-factory have a union store, to the fund of which each operative is required to contribute one rix-dollar a month, his whole share not to exceed 100 rix-dollars. The sale of goods out of the store last year amounted to 100,000 rix-dollars, with a profit of 25 per cent. on each one's stock. A private savings-bank connected with the factory, which has been in operation less than a year, has deposits of the operatives amounting to 1,000 rix-dollars.

The hands of the government machine-shop at Stockholm have a private savings-company under their own control, the treasurer being chosen from among their number. The money is loaned out at 8 per cent., generally to such workmen as are erecting houses of their own, and the income divided *pro rata*.

At Eshilstuna, where the government musket-factory is situated, and where the number of people working for wages is about 2,000, and the number working at cutlery on their own account is about 500, the cashier of a savings-bank, in which 88,920 rix-dollars were deposited in 1872, estimates that about 1,000 of the depositors were working-people living in town.

A second-class workman in the match-factory at Jönköping earns 700 rix-dollars a year; has a family of wife, mother-in-law, and three children, the eldest a boy of ten years old, who goes to school. He has a kitchen 14 by 12, a sitting-room 15 by 15, a cellar, and shed-room for three cords of wood. His expenses for subsistence are 370 rix-dollars a year; taxes, 6 rix-dollars 63 öre; and total expenses about 650 rix-dollars. He lays up annually from 30 to 50 rix-dollars a year in the savings-bank.

A workman in a foundry at Stockholm, who has a family of wife and three children—a boy thirteen years old at school, a girl seven, and the youngest a boy three years old—lives in a second-story room up a steep pair of stairs, (down which the youngest child has fallen several times,) which is 10 by 10, and 7 feet high. He earns 2 rix-dollars a day, has worked at the same place ten years, and since the eighth year has had

free rent. They have fresh meat three times a week. He has money in the savings-bank, and saves annually about 100 rix-dollars.

A book-binder in Stockholm, who earns 1,060 rix-dollars a year, has a wife and three children, pays 200 rix-dollars a year for a fair-sized living-room, a smaller room without windows, and a kitchen, all four stories up. His annual expenses are 876 rix-dollars. His wife earns 150 rix-dollars a year, so that their clear income is 334 rix-dollars.

These are all cases of temperate men, who have prudent wives, and they show that where people have the disposition, and do not meet with serious misfortune, they can most always make savings. Many an employer or manager has remarked to me, "Everything depends on the wife," which shows how important it is, by education and otherwise, to improve and elevate the condition of women.

At the Motala Iron Machine Works, where 1,100 hands are employed eleven hours a day, working by the hour, 300 workmen have invested 75,000 rix-dollars in a savings-bank, with interest at 5 per cent. A leading workman has 10,000 rix-dollars in bank. About 150 workmen own the dwellings which they occupy and a piece of land. A few own small farms. The workmen have a union, with a building, which cost 10,000 rix-dollars, paid for by a loan, one-third of which has been redeemed.

When I was at Sundewall last summer, and was paying a porter for bringing my baggage from the steamer to the hotel, our consular-agent remarked, "That young man has 5,000 rix-dollars in the savings-bank. Everybody has confidence in him, and likes to employ him, because he keeps his word." A member of the Diet living at Sundewall assured me that workmen there could earn 10 rix-dollars a day, and, in respect to wages, could do as well as in the United States.

#### VENTILATION.

As to ventilation, and the quantity of atmosphere allowed to adult persons in sleeping-rooms, 1,000 cubic feet, equivalent to a room 10 by 10 and 10 feet high, being the acknowledged standard allowance, it would seem that the care in such matters taken by the state for its best soldiers, should afford fair means of forming a judgment as to what is general.

At a shirt-factory in Stockholm, 40 young women sit through the day sewing in a room 24 by 24 and 12 feet high. At a large paying factory of another kind at Stockholm, 12 female operatives are lodged in one room, two together, in beds only 3 feet wide. At the quarters of chimney-sweep boys it is usual for about 8 to lodge in a room 15 by 12 and 9 feet high. These boys seem to be well fed but poorly paid, though their employers derive a good income.

#### USE OF SPIRITS AND BEER.

The reports of district physicians to the board of health, for a few years preceding 1870, mention a diminution of whisky-drinking, which probably was partly owing to the scarcity of money caused by several failures of the crops. During the past year or two of flush times it has seemed as if the copious use of spirits was again increasing, and yet there are evidences of a steady abatement of intemperance. In 1829, when the population was a million less than it is now, the annual production of whisky was 32,000,000 gallons, while now it is 10,500,000 gallons. The actual production in 1872 was 16,678,364 kanner, or, in round numbers, 10,500,000 gallons. It was distilled from potatoes, and contained 50 per cent. of alcohol. About the same quantity was produced in each of the immediately-preceding years. Very little is exported. The most, or say 2½ gallons in proportion to every inhabitant, is consumed as drink.

By the license-act any one can sell quantities of 8½ gallons and upward without a license. Two classes of licenses are issued: one for selling quantities not less than three-tenths of a gallon, another for selling by the glass; and both classes are disposed of to the highest bidder. The local authorities can grant all the licenses to a single company, or may even prohibit the sale entirely. It is illegal to sell to minors under fifteen years of age or to persons who are intoxicated.

The number of shops licensed to sell whisky by the glass in Stockholm for the year 1872 was 322, which was 5 less than for the year 1869, and 150 less than for the year 1845. Beside these licensed shops there are places which have old and permanent privileges to sell by the glass. The licensed shops are also a cheap sort of restaurants. The applicant for license in Stockholm must pay to the city 40 öre on every kanner (2½ quarts) he asks the privilege of selling. The income to the city from licenses was 350,407 rix-dollars. The public expenses for its poor in 1870 were 635,374 rix-dollars.

The ordinary Swedish whisky-glass holds a fifth part as much as a common tumbler, and as much whisky as it will contain is sold at 6 öre, (1½ cents.) Five such drinks in the course of a day by a workman, or 30 öres' worth, is not considered an immoderate quantity. The expense of so much whisky in a year, at that rate of use per day, would be 109 rix-dollars at 50 öre.

The Gothenburg plan for retailing spirits appears to have operated favorably, and is attracting much attention. That city puts the business into the hands of a company of philanthropic gentlemen, which has it sold in orderly restaurants without a view of profit. The theory that the use of beer has conduced to temperance is hardly sustained by experience in Sweden. A great deal of beer has been consumed in late years, and though it is not so strong as the English beer, it is nevertheless intoxicating. The report of one of the official physicians to the board of health in 1866 mentions cases of actual delirium tremens from excessive use of beer. Another physician states that when a doctor visits a peasant family the man of the house always urges him to take a glass of whisky, and is astonished when told that its use as a beverage is unhealthy. The sight of drunken workmen in the streets of Stockholm, especially on Saturday evenings, on Sundays, and on Mondays, is common.

The phrase "Free Monday" comes from the custom of men engaged in sedentary and manual trades spending Monday as well as Sunday in drinking and frolicking. There are shops employing from sixty to one hundred hands which on Monday will only have a third of that number. There are also shops which have their private temperance societies. At the Motala Machine-Works is a society of 100 members—workmen pledged to abstain from whisky. At no work-shop employing workmen is whisky allowed to be brought upon the premises.

Among the causes which make the use of spirits so common may be mentioned the fashion among all classes of the male population to partake of a glass of whisky immediately before dining; the common practice, even among the young, of drinking beer with meals; the common use of tobacco among males, in smoking and snuffing, and among the poorer classes of men of chewing snuff; the lack of sources of recreation during leisure hours; and lastly, and perhaps the most important of all, the insufficient diet of the workingman, his lack of elevation, and of home attractions.

#### DWELLINGS.

In the larger cities the houses are of unpressed bricks; the walls over a foot thick, plastered, and washed in a sort of cream color. The roofs of the larger ones are covered with sheet-iron; those of the common-sized dwellings in city and country are covered with tiles. In the larger houses each story is finished as apartments for a family. There is a spacious fire-proof stairway common to the whole house. Neither balconies nor outer blinds are in use. The windows are in two parts from top to bottom, and open outward on hinges. In the winter double windows are universally used, with a roll of white cotton laid between at the bottom, openings of at least one large pane on hinges being provided for in each room in the better houses. In the country, among the working-class, it is common for the double windows to be put in so as not to be opened. The manner of warming is by an earthen stove in each room, generally reaching from the floor to the ceiling, and usually standing in a corner. They belong to and are fixtures of the house. Near the Norwegian frontier iron stoves are used, which is the habit in Norway. An average earthen stove in the Stockholm houses costs 500 rix-dollars, (\$132,) and the most elegant ones as high as 2,000 rix dollars, (\$530.) The interior of the stove is of brick-masonry work, the exterior of white glazed earthen material in the form of hollow panes. The whole can be taken apart and put up with but little labor. Their Swedish name signifies literally earthen-pane ovens. In shape they are about as frequently oval as square, but sometimes are highly ornamented, occasionally having a fine mirror for a part of their surface, and being so put up as to appear as merely a part of the wall of the room. Wood is used for fuel, being cut in pieces about a foot long. All that can be conveniently put in at once, say as much as would ordinarily be taken in one's arms, is laid in at one heating, and after it has burned to coals, and the gas has all escaped, the stove-door is shut and a damper drawn at the top to prevent the heat escaping. In an ordinary-sized room, and if the weather is not excessively cold, such a heating will answer for twenty-four hours. Some of this sort of stoves, from the Stockholm factory, have been imported to the United States. It is probable they are more comfortable and conducive to health than iron stoves. Among most of the peasantry in the country, and among many working-people who only occupy a kitchen, the rooms are warmed solely by the kitchen fire-place, the hearth of which varies in elevation from one to two feet above the floor. Its hearth is often of iron. There is a damper in the chimney to prevent the heat from escaping.

It is rare to see squalor in the homes of the working poor. Generally, even in the poorest cottage, there is an indication of pride, tidiness, and taste.

#### AVERAGE DWELLING OF WORKINGMAN.

The average apartments of a Swedish workman, having a family of wife and three or four children, consist of a living-room and a kitchen, with dimensions and furniture



about as follows: The kitchen is 9 feet high. In it stand a small cupboard and a box for wood. On the raised hearth of the open angular fire-place are some cooking-utensils, among them a copper coffee-boiler. On a pole hanging under the ceiling are strung some thin cakes of rye hard bread, about a foot in diameter. The floor is unpainted, and while not actually dirty, is not white. The living-room is 16 feet by 14, and the same height as the kitchen. The floor is of spruce or pine, the boards closely matched, and scrubbed clean. A couple of strips of home-woven carpet are laid across it. There are two windows, with cheap, yet clean and tasteful, lace curtains hung on each side. On one side of the room is a plain sofa-bed, which can be drawn out so as to make a double bed four feet wide, something over a foot higher than the floor. Commonly in Sweden beds are shut up during the day to half their length. The bedding is laid together on the single breadth of the sofa, resembling a high single bunk, over which is laid a white cotton spread. On the opposite side is a wooden sofa of stained birch, the bottom of which can also be drawn out so as to form a double bed; and there are three or four wooden chairs. At one corner of the room is a plain stained bureau. A white cotton crochet is spread over the top, and on that are some little articles of china—a cup and saucer, or a vase, and a couple of plated candlesticks. Between the windows stands a table with a red woollen cover, and above it is a gilt-framed mirror. On the walls are two or three framed pictures, some little shelves for books suspended with a cord, and a cheap clock. In another corner of the room is a small cupboard or dresser. In still another corner stands the earthen stove, and on the floor against it is placed a spit-box, the bottom of which is covered with spruce twigs. On the window-seats are several pots of flowers—the oleander, the geranium, &c.

#### INFLUENCE OF A WORKMAN'S HOME.

The influence which a workman's home exerts on his own and his family's welfare is becoming more and more recognized. Employers begin to understand that, in proportion as a workman's dwelling is ample in size, neat and attractive within, and wholesome in its surroundings, does his efficiency increase. In Gothenburg, and perhaps in some other places, share-companies have been formed for the building of model tenements for the industrial classes, and a few buildings of the kind have already been put up there. In all parts of the country a few of the principal employers are preparing to erect model dwellings, with the intention that their workmen may ultimately, by annual payments, become the owners of them.

Some of the best model dwellings that I have seen are at the china-ware factory at Gustafsberg, about two hours' distance by steamer from Stockholm. About a dozen have already been erected, and it is the purpose of the proprietors to continue their construction till the most of their hands—400—are supplied, though the old accommodations are as good as the average. The factory is situated in a retired and somewhat romantic region, on what seems more like a lake than a bay, yet with navigable communication with the sea, and the model dwellings are five minutes' walk distant, with a view of the water, and 30 feet above its level. The land, of which 2,000 acres belong to the factory-owners, is moderately rolling, mostly open timber of birch and oak, with here and there a small pond, and the balance fields. The dwellings in question are pleasantly situated on each side of a graded and macadamized road, and 30 feet from it. Each house is designed for only two families, and is 46 feet long, 28 feet wide, and one and a half stories high. They are built of pine or spruce timber, in tasteful cottage style, and are of light-brown color, being stained so as to leave the grain of the wood visible. They rest on solid stone or brick foundations. The walls are three-quarters of a foot in thickness. The outer boards are planed clapboards, two-thirds of an inch thick; next is a thickness of paper, such as is used in house-building, then battens three inches thick, then paper, then boards, and again thick paper, the latter forming the interior walls of the rooms, so that the whole constitute exceedingly dry and warm walls. The roof is covered with wooden shingles steeped in iron vitriol, which gives them a dark color, and projects from the ends two feet from the walls, with some ornamental work on the edges. There is a brick chimney for each family near each end of the house. Each family has two entrances, at their own end of the house, from a veranda 18 feet by 5, two steps from the ground, and along which runs a neat balustrade. One door opens into the kitchen, the other into the sitting-room. There are three rooms to a family, namely, kitchen, bed-room, and sitting-room. The kitchen is 13 by 13 feet, 9 feet high; bed-room ditto, with one window. The sitting-room is 18 by 15 feet, and 9 feet high, with, in some houses, one large window, in others two windows. Under each kitchen is a small cellar. There is also a garret for each family, reached by portable steps from the veranda. Good water is obtained from a well 5 feet deep on each lot. The closets stand several rods in rear of the houses, at the farthest edge of the premises. The dwellings being partly experimental, the relative size of the rooms varies in some, though each family has the full space as above given. But what is most striking about these dwellings is the land which each family has connected with their part of the house, and the beautiful flower-gardens, and nice, thrifty vegetable-gar-

dens which surround them. Each family has the use of a quarter of an acre of good smooth ground, which is divided into a vegetable and a flower garden. There are no fences between the different gardens, but instead hedges have been planted between the different lots. There is a simple rustic fence between them and the road. The gardener of the principal proprietor comes in the spring and assists the people in laying out their gardens, and the rest of the work is done by the housewife and children. The flower-gardens are prettily laid out, with grass margins and graveled walks, and contain an abundance of nice flowers and shrubbery, also fine-bearing apple and pear trees. I noticed on September 8, on a young tree, handsome ruddy apples  $2\frac{1}{2}$  inches in diameter. Shade-trees have been planted on each side of the road. The occupants are charged but 60 rik-dollars (\$16) a year for rent, and this sum is about covered by the income from the vegetable garden. They also have free use of a nice hilly park, close to their premises. The cost of each house, exclusive of land, is \$1,322, or 5,000 rik-dollars. Everything about them is thorough and neat, and, with the ample space about them, their attractive surroundings of flowers and shrubbery, and their white lace curtains at the windows, they might readily be taken as the homes of the well-to-do middle-class. Of course the oldest and best hands have the preference in obtaining such dwellings.

#### FOOD.

It can truly and happily be said that there is scarcely any adulterated food used in Sweden. The poorest people in the country sometimes mix burnt-bread crumbs with their coffee, or use chicory, of which there were 446,485 pounds imported in 1871, while the import of pure coffee in kernel was 20,693,734 pounds; but, with such slight exceptions, the food is pure. One hears no complaint of adulterated milk being sold in the market-squares of Stockholm. A person may travel all over Sweden, and find at convenient distances on every public road hotels that furnish clean, good, and palatable food. Some of them, even in remote places, will be found luxurious. The meals at railway eating-stations and on steamboats are habitually good.

The principal articles of diet for the working-class in scarce times have been potatoes, rye-bread, milk, salt herring, and a porridge of rye-meal, called "velling." In the past year or two, as wages have risen, it has become common to consume salt pork from the United States, which is considered a luxury as compared with salt fish. Much of the rye-bread is of unbolted meal, and after baking is dried hard, so as to last many months. The herring used on the eastern coast, and perhaps half way to the Norwegian boundary, are from the Baltic Sea and Bothnia Gulf, and called "strömoning." They are about eight inches in length, and covered with small scales of a shining, bluish color. When broiled quite fresh their flavor is not much inferior to that of a brook-trout. They are salted at home, and often, in the north part of the country, become half decayed during some days' transportation before getting to their destination.

The Swedish working-people may be regarded as hearty eaters; yet, if their fare is copious, it is at the same timesimple. In the towns it is perhaps an unfortunate habit of very many workmen to take their meals and lunches at the common whisky-shops, where cold meats, sausages, and the like are always at hand. The import of coffee shows an allowance of over five pounds to every inhabitant, and its use is excessive among a good many of the common class, especially among the women. It is almost always well and strongly made. It is common to take coffee soon after rising in the morning. Breakfast, among the industrial classes, is eaten at about 8 o'clock. By many coffee is taken again at 11, also at 4 p. m. Dinner is eaten at 1 p. m., when the drink is usually beer. Bavarian beer, so called, though brewed in Stockholm in large quantities, is much liked, and sells by the dozen at 8 öre, say  $2\frac{1}{2}$  cents per half bottle. There is, however, a cheaper and weaker beer, called "svogdriker," wholesomely brewed, reasonably palatable, and used by poorer people. The supper will be taken at 6 o'clock, when oat or barley grits, thoroughly boiled, will be eaten with a little sugar or butter. In the long summer days working-people usually eat four times a day, a lunch being taken at 4 p. m. Neither hot bread nor pies are ever eaten, nor is saleratus used in bread-making. The practice of frying instead of boiling meat is universal.

The "smörgåsbord" is peculiarly Swedish. It is preliminary to any formal sitting-down meal, and answers for sharpening—sometimes for satisfying—the appetite. It is a daintily-arranged side table, on which are set some small, thin slices of cold meat, varieties of pickled fish, bread and butter, pickles, and, with very rare exceptions, "brännvin" (Swedish whisky,) a white and somewhat flavored spirit. Medium-sized wine-glasses are set around the decanter, and after the men (for Swedish women do not drink whisky) have taken a few mouthfuls of solid food, they pour out and drink at a swallow a glass of whisky. While eating at this table, on which generally, in private families, there are also milk and beer, people stand or walk about. This table and the glass of whisky—sometimes two glasses—are in daily use among people in comfortable circumstances, and by the industrial classes on any special occasion, or

when their means will allow. At dinner-parties, among the more genteel, instead of the table being set, a part of its contents in more delicate form, yet including the spirit, are passed around on waiters before the guests go in to dinner.

#### RATION OF GARRISON SOLDIER.

The rations for one hundred soldiers in the Swedish garrisons for one day, for example Sunday, are as follows: Soft rye-bread, 200 pounds; potatoes, 2 bushels; butter, 14½ pounds; salt herring, 18½ pounds; fresh meat, 75 pounds; pease, dry, 10 quarts; hulled wheat, 10 pounds; barley-grits, 35 pounds; flour, 1½ pounds; a little pepper and salt.

The ration varies in kind during the week, but quantities are issued averaging with the above. It will be seen that two pounds of bread are issued to each man daily, the Swedish pound being a trifle less than the pound *avoirdupois*. For the breakfast, there are salt herrings four times in the week; boiled cod-fish, which has been dry-cured, twice; stewed pease four times, potatoes three times, butter three times. For dinner, fresh meat three times in the week, corned meat twice, salt meat once, fresh pork once, stewed pease every day, potatoes four times, hulled wheat three times, with a little flour, pepper and salt. For supper, daily, boiled barley-grits, with butter and salt. This ration is considered here as a strong one, and is sufficiently ample to admit of the exchange of a portion of it for coffee and sugar, as the regulations permit, and the men in that way obtain coffee with loaf sugar every morning before breakfast. No company savings are made from the ration. Its average cost per day, singly, at government prices, is 56.12 öre, or 15 cents in gold. At retail prices, and in the quantities which working-people usually purchase, the cost would be 20 per cent. additional, namely, 67 öre, or 18 cents.

The daily ration per man for such men as perform labor in the public workhouse of Stockholm, including those sent from the institution to clean the streets, is as follows: 1 pound of rye-bread, or as much as is required. Breakfast: ½ pound pickled herring, ½ pound potatoes, ½ pound pease, 1 pennyweight butter, 3 pennyweights flour, 1½ pints light beer, "svogdricker;" in winter, rye-porridge instead. Dinner: ½ pound fresh meat free of bone, ½ pound potatoes, 1½ pints soup. Supper: 1 pint rye or barley grits, ½ pint light beer, with some variations in kind during the week.

The following shows the daily fare for each boy at the Stockholm Institution for Orphan Boys: 1 pound soft rye-bread. Breakfast: 1 pint rye-meal porridge, ½ ounce butter. Dinner: 1 pint soup, ½ pound fresh meat free of bone, ½ pound potatoes. Supper: 1½ pints barley-grits, ½ pint milk, with changes in kind during the week.

The average cost of maintaining sick persons in all the public hospitals is 92.5 öre each per day, or 25 cents.

As a general rule, working-people do not consume fresh meat oftener than once or twice a week, and it may fairly be assumed that subsistence, amounting to double the quantity of the ration of a garrison-soldier, as above specified, somewhat exceeds what an average industrial family, of husband, wife, and three children, are able to procure. A very common, nutritious, palatable, and at the same time cheap article of food consists of boiled oat-grits, eaten with milk; also, oat-meal porridge, made with milk and slightly sweetened.

#### CITIES.

Stockholm, the capital, has a population of 150,000, with a picturesque situation on the outlet of the Mälar Lake, and twenty miles from the Baltic, with several ample and charming parks in its environs; the deer-park, for example, being pronounced by competent judges as naturally the finest in Europe. With numerous benevolent and learned institutions and rich collections of art, with a fine opera in the Swedish language, with a fair commerce and growing manufactures—a city founded on granite and built of bricks and of stone—it is the capital of the North, of which every Swede is proud, and may well be supposed an agreeable winter home for many of the country gentry.

Gothenburg, on the western coast, has 60,000 inhabitants, a good harbor, and communication with the interior by a canal, and two lines of railway, and without exaggeration may be pronounced a model city.

Malmö and Norrköping have a population of about 30,000 each. Ten other cities have a population each of 10,000 and upward, while there are twenty others that have from four to ten thousand each. About 13 per cent. of the whole population live in towns.

#### POPULATION AND RESOURCES.

According to the census of 1871, the whole population of Sweden was then 4,204,171. It has trebled in the last one hundred years. The commercial marine of Sweden in the same year consisted of 3,495 vessels, with an aggregate tonnage of 367,614. The

value of its imports the same year was \$45,260,372, United States gold, and its exports \$42,825,265. The value of the export of grain was \$10,791,600; of lumber, \$17,446,576; of metal, \$10,000,000. The production of pig-iron amounted to 337,363 tons. The value of manufactures and fabrics was \$28,000,000, which sum, however, is under the actual value, and is exclusive, also, of the products of hand-trades, which are considered equal in value to "manufactures" and "fabrics."

The agricultural crops in 1871, according to the statistics for that year, which are considered to be rather under the actual figures, were as follows:

Wheat .....	imperial bushels.	589,288
Rye .....	do .....	17,923,180
Barley .....	do .....	14,443,312
Oats .....	do .....	37,063,669
Mixed grain .....	do .....	4,818,605
Pease .....	do .....	1,639,384
Beans .....	do .....	227,524
Buckwheat .....	do .....	15,277
Potatoes .....	do .....	41,428,692
Other root-crops .....	do .....	4,403,677
Vetches, fodder of pea species .....	do .....	651,199
Hemp .....	tons.	4,720
Hay .....	do.	1,768,220

#### SOCIAL STATISTICS.

The number of households in 1870 was 1,017,323. Of these the number having but a single member was 131,565, a proportion that appears to be on the increase. The average number in a household was within a small fraction of 5. In 1860 the average number was 6.80. The rate of mortality was 1.98 per cent. Eighteen per cent. of the mortality was of infants under one year of age. During the ten years 1861 to 1870 the number of living children born annually in proportion to every 1,000 inhabitants was 31½. Of these, the proportion of illegitimate births, including the whole kingdom, was 5.85; but including only cities, the proportion of illegitimate was 14.32. Three and a quarter per cent. of all births were still-born. During the ten years 1861 to 1870 the percentage of legitimate still-born was 3.13; of illegitimate still-born, 4.82. During the same period the average number of marriages annually in proportion to every 10,000 inhabitants was 65.44. For the same period the whole number of divorces from marriage was 1,301; of dissolution of betrothals, 1,549. The average number of suicides per year in proportion to every 100,000 inhabitants was 8.04; number of deaths from drowning, 1,132; from accidental burning or scalding, 153; from accidental poisoning, 20; from accidental suffocation, 146; from accidental shooting, 32; from contusions, breaking of bones, and the like, 461.

In 1870, the number of blind under twenty years of age was 400; of deaf and dumb under the same age, 1,500. The number of patients at the insane asylums was 1,247, of whom 46 belonged to the first paying-class, 154 to the second, and 920 to the third, while 127 were at public charge.

The number of poor wholly supported by the public was 85,147; the number assisted, but not wholly supported by the public, was 119,231. The average number of convicts in all the prisons in 1870 was 5,951.

#### EDUCATION.

Previous to 1842 there were as many as 786 schools, with 30,773 pupils. Compulsory education was established in 1842, and has operated very successfully. In the more sparsely-settled districts there are "movable" schools; that is, the teacher holds a school for a few days or weeks in one part of a district and then for a certain time in another part of it, which shows that there is always a way for a people to be educated, if they only have the disposition. In 1870 there were 1,164 such movable schools. The whole number of "folk" or common district schools the same year was 7,303, attended by 555,595 pupils. In 1871 the number of male teachers of such schools was 5,029, of whom 52 were clergymen and 1,057 church clerks. The number of female teachers was 2,776. Of the whole number of teachers, 833 were extra or assistants. Of the regular or ordinary teachers, 2,455 received the minimum pay of 400 rik-dollars a year, besides apartments for lodgings, a piece of ground, and hay for a cow, which minimum, beginning with next year, is to be 500 rik-dollars, and in five years thereafter 600 rik-dollars, and only 715 received over the minimum pay. The number of school-houses was 4,413, with 2,166 gardens attached. The amount expended in 1871 for the support of these schools was 3,537,968.62 rik-dollars, or nearly \$1,000,000 gold. Of this the principal part, or 2,573,927.58 rik-dollars, was contributed by parishes, 842,907.81 rik-dollars by the state, and 121,133.13 rik-dollars from interest on endowments. In 1870 there were 98 high schools for boys, having 756 teachers and 12,755 pupils.

## CLASS-DISTINCTIONS.

Aristocratic birth here gives a person great preference socially and politically. The better offices are almost exclusively held by the aristocracy. The number of persons in Sweden of noble birth in 1855 was 11,742. Their political power as a distinct class ceased with the new constitution of 1866. The titles of count and baron, which of themselves are influential, are still used. In one of the guard-regiments the custom is still adhered to of appointing only noblemen as commissioned officers.

There are five different orders of knighthood, of which one confers rank equal to that of a cabinet minister. Titles are much used. In addressing a person in writing, his title, profession, or occupation is prefixed to his name; so that if a man is a shoemaker it is as natural to address him by that title as to address a captain as captain. Even the surnames of people have a signification of caste. The nobles generally have names borrowed from animals, as "Lionhead," or from some heroic device, such as a shield; while the names of the un noble are more frequently taken from objects of nature, such as "Meadowstream," "Rockstream," and the like. On the other hand, the peasants very generally have the word "son" attached to their names. It would be singular, perhaps, if a person should rise to the rank of prime minister with an un noble name. If we go among the peasantry, we shall find that even they are a sort of aristocracy as compared with a class below them. What is technically the peasant is in Swedish "bonde," and implies one of the class of countrymen who own and cultivate moderate-sized farms. Below him in social rank is the "torpar," or cottager, a man with family, who hires a house and small patch of land, which he pays for by so many days' work every week.

A house man-servant is called a "betjent," and an outdoor hired man a "dräng." A servant-girl of lowest rank, who does some outdoor work, is a "piga," the ordinary house-maid a "jungfru," and a maid intrusted with some responsibility and working with a seamstress a "mamsel." A young unmarried lady is addressed as "fröken," the wife of a workman as "madam," and of a gentleman as "fru."

Fashion seems more favorable to young men than to young women. The latter, if employed as kitchen or house servants, generally wear black silk kerchiefs closely pinned over their heads, but not hats or bonnets, notwithstanding that the law prescribing their dress was several years ago repealed. Young men in the humblest occupation can appear, when wearing their best clothes, in the dress of a gentleman. In the country the workingman, of whatever trade, wears a leather apron, which extends from over his breast to below his knees.

The relations between the higher classes and those in humble life, and between employer and employed, are decidedly kind. Indeed, it is almost universal to address servants, or those of whom any act of service is desired, as "snäll," meaning very capable and serviceable, and in rather a beseeching tone. In the winter, family-servants among the wealthy are allowed fires in their rooms, two servants generally occupying a room together. The whipping of persons in service was abolished by law in 1855, and the whipping of soldiers in 1868.

## SALARIES.

The highest salaries are paid to foreign ministers. The annual salary of the minister to London is \$17,011, and the same for the minister at Paris; the minister to St. Petersburg receives \$15,957; to Berlin, \$10,000; to Copenhagen, \$10,000. The minister of foreign affairs receives a salary of \$6,387 and a furnished house. The other members of the cabinet who are chiefs of the departments receive \$4,000 a year; those not chiefs of departments, \$3,500. The pay of first under-secretaries is \$1,462 a year; the King's attorney-general, \$1,835; judges of the supreme court, \$2,127 each; the directors-general of prisons, posts, telegraphs, and the president of the board of health, \$2,127 each; the director-general of railways, auditors-general, and directors-general of customs, \$2,393 each; the chief engineer of railways, \$2,659; the surveyor-general, \$1,595; the director-general of forests, \$1,835; the attorney-general of the Diet, \$1,835; accountants, from \$500 to \$930; copyists, \$267; a general in command, \$2,393; colonels, from \$1,433 to \$1,962; captains, from \$319 to \$1,117; lieutenants, from \$80 to \$516. In most cases pensions, after long and meritorious service, are paid. The constitution prohibits removals from office without good cause, excepting those officers of a confidential character, such as the heads of departments or bureaus and first under-secretaries.

The latest published statistics on this head are for the year 1860, those for 1870 being in course of publication.

In 1860, the number of persons of both sexes employed in the various occupations were as follows as to each: Agriculture, including fisheries, 664,063; mining and productive industry, 174,073; commerce and trade, 20,431; transportation, 21,054; personal service, 93,350; sick care, 2,371; instruction, 7,400; church service, 5,773; state and local administration, 9,392; army and navy service, 39,090.

The more thoroughly labor is divided, the higher naturally will be the degree of skill. In the government musket-factory, and, indeed, in all industries where a high

degree of skill has been attained, the division of labor will be found very extensive. Swedish skill in the production of iron and steel is widely acknowledged. In the manufacture of chinaware, of paper from wood, and of matches, much skill is shown. A match-factory at Jönköping consumes \$40,000 worth of timber, principally poplar, yearly in matches, and ships off one and a half car-loads of matches daily. It pays every year nearly \$100,000 in wages. The Swedish laws prohibit the employment of children under twelve years of age in any factory. Operatives under eighteen years of age are prohibited from being employed in any factory at night.

It is in only a few hand-trades as yet in which more than ordinary skill is to be seen. Boots, however, nearly as good as the French, are made in Stockholm. A great part of the cloth used by the country-people is woven at home by women. Co-operative labor has lately been introduced with success in the production of butter and cheese. Sewing-machines are common. During the present year a number of American agricultural machines have been introduced into the country.

Much out-door work is still done by women. Besides doing certain kinds of farming work, they are also generally employed as tenders to bricklayers; they prepare the mortar and carry it in buckets. They sometimes carry bricks, which is done with a rope over their shoulders. They are frequently to be seen hauling small carts in the street, and especially in hauling washing to and from the quays, it being the practice all over Sweden to take clothes, after they have been partly washed, to some stream or lake and there rinse and beat them. Summer and winter, therefore, women may be seen on their knees down by the water's edge, on platforms specially designed for the purpose, in this occupation. In most of the large manufactories the coarsest of the drudgery is done by women. The law has not yet given the wife control of her earnings.

#### MINING AND MANUFACTURING INDUSTRIES IN 1871.

The following statement of the products of the mining and manufacturing industry of Sweden in 1871, was obtained from another source :

The number of iron-mines in operation in Sweden during the year 1871 was 487, from which 636,453.15 tons of ore were obtained, (besides 15,509.54 tons of argillaceous iron-stone.) This is the largest annual yield ever recorded in that country.

The products of the iron manufacture were as follows :

	Tons.
Pig-iron .....	293,988.85
Bar-iron .....	184,696.48
Cast iron .....	12,036.45
Steel .....	8,389.05
Sheet-iron .....	6,455.66
Nails .....	6,036.83
Other manufactures of iron .....	14,079.72

Of gold, silver, copper, nickel, and lead, the following quantities were produced :

Gold .....	13.38 pounds avoirdupois.
Silver .....	2,147.78 pounds avoirdupois.
Nickel .....	40,568.86 pounds avoirdupois.
Copper .....	1,398.18 tons.
Lead .....	87.67 tons.

The total number of factories in operation during the same year was 2,305, employing 40,420 hands, and the aggregate value of the manufactured products of these amounted to \$29,002,930, of which the percentage from each of the principal branches is exhibited as follows :

	Per cent.
Cotton-factories .....	23.0
Sugar-refineries .....	16.2
Woolen-mills .....	10.8
Iron-works .....	10.3
Tobacco-factories .....	6.7
Leather-factories .....	5.0
Paper-mills .....	5.0
Match-factories .....	2.5
All other branches .....	20.5

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## CONDITION OF THE WORKING-CLASSES IN SWEDEN.

Although Mr. Andrews has indicated in the foregoing report the condition of the laboring classes in Sweden, yet the following categorical replies to the questions submitted by the author afford, in a concise form, information of value :

*A report on the condition of the working-people of Sweden in reply to questions from the Chief of the Bureau of Statistics.*

- I. They are industrious.
- II. Probably 40 per cent. of the males are intemperate.
- III. They lose about two days a week in consequence.
- IV. The comforts of their families are seriously abridged by the loss of time and money occasioned by drink, yet more, probably, by that moral degradation and wretchedness occasioned where the head of the family is a drunkard.
- V. The condition of the rooms of the working-people is in general tidy.
- VI. It is common for one family to occupy one room besides a small kitchen.
- VII. The advances in wages which have occurred in the past two years have on the whole resulted to the advantage of the families of the workmen.

STOCKHOLM, December 15, 1874.

## NORWAY.

The manufactures of Norway are unimportant. Wood and fish are the chief products of the country; and these find their way to every part of Europe, chiefly in Norwegian vessels, which in return bring home whatever foreign articles are required at the cheapest possible rate of freight. The import duties are very moderate. Before the importer pays his duties he is allowed to take his goods to his own warehouse or shop, on giving security for the amount of the duties ascertained by the custom-house officers on landing. He also keeps an account of his sales, and pays the duty every three months on the quantity which appears to be sold.

Coffee, sugar, tea, liquors, tobacco, and some spices, are the principal articles for which the housekeeper has to disburse money; the other necessaries of life are produced by themselves. Shoes, furniture, clothes, and the like, are all made at home. Looms are at work in almost every house in the country. Carding, spinning, weaving, trimming, constitute the occupation of the female part of the household. Woolen cloth, substantial but coarse, excellent bed and table linen and checked or striped cotton or linen for female apparel, are the ordinary fabrics produced. These home-made stuffs, including boots, gloves, and, in bad weather, great-coats, clothe the greater part of the inhabitants with more comfort than is the case with the lower and middle classes of people in most other countries. The upper classes dress as in other parts of Europe.

The principal articles of export are timber, bark, iron, copper, fish, and some others. The principal articles of import are corn, colonial produce, woollen, linen, and cotton goods, wine, brandy, and some others.

## RATES OF WAGES IN 1871.

The following statements, showing the rates of wages paid for farm, mechanical, and factory labor in Norway in the year 1871, were chiefly obtained from the British consular reports :

*Table showing the weekly earnings of work-people employed in agriculture.*

[Computed in United States gold.]

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Agricultural laborers .....	\$1 96	\$1 92	Man, horse, and cart .....	\$5 10	\$5 76
Head-gardeners .....	2 70	3 72	Dressing wood for shipment .....	3 84	4 26
Laborers .....	1 94	2 12	Common laborers at dressing wood for shipment .....	2 12	2 54
Women weeders .....	1 26	1 60			

*Weekly rates of wages in woolen-factories.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Wool-sorters, women .....		\$2 12	Dressers:		
Wool-washers .....		3 20	Foremen .....		\$6 40
Overseers .....		6 40	Fullers .....		3 20
Assistants .....	\$3 20	4 26	Dressers or giggers .....		3 20
Carders .....	3 20	4 26	Finishers:		
Spinners:			Men .....		3 20
Boys .....		2 12	Women .....		2 12
Foremen .....		6 40	Press-tenders .....		3 20
Warpers and beamers .....	3 20	4 26	Drawers .....		3 20
Reelers .....		2 12	Brushers .....		2 12
Overseers, (British) .....		14 40	Packers .....		3 20
Assistants .....	3 20	4 26	Overseers .....		6 40
Weavers .....	2 12	3 20	Assistants .....	\$3 20	4 26
Burlers .....		2 12	Engineers—foremen .....		4 26
Overseers .....		6 40	Mechanics .....	4 26	6 40
			Laborers .....		3 20

*Weekly rate of wages in cotton-mills.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Carding department:			Dressing department—Cont'd.		
Overseer .....		\$6 40	Drawers and twistors .....	\$2 12	\$3 20
Picker-tenders .....		2 56	Dressers and twistors .....	3 20	4 26
Drawing-frame tenders .....		1 70	Weaving department:		
Picker-boys .....		1 48	Overseers .....	5 32	6 40
Grinders .....		3 20	Weavers .....	2 12	3 20
Strippers .....		3 20	Drawers in hand .....	2 12	3 20
Spinning department:			Repair-engine room:		
Overseer .....	\$4 26	5 32	Iron-workers .....		4 26
Mule-spinners .....		1 70	Engineer .....		6 40
Mule-backside piecers .....		1 48	Laborers .....		3 20
Frame-spinners .....		1 48	Cloth room:		
Dressing department:			Overseer .....	4 26	6 40
Spoolers, women .....		2 12	Second-hand .....		3 20
Warpers .....	3 20	4 26			

It is to be observed that cotton and woolen goods in this country are all of a second or third rate quality, none being manufactured of a first-rate quality.

*Weekly wages in paper-mills.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Machine-tenders .....	\$3 87	\$5 37	Bleachers .....	\$2 58	
Assistant tenders .....	2 58	3 22	Sizers .....	2 58	
Bag-cutters:			Carpenters .....	3 87	
Men .....	2 58		Blacksmiths .....	3 87	
Women .....	1 28	2 14	Carters .....	2 58	
Engineers .....	3 23	3 87	Boys .....	1 61	
Assistants .....	2 58	3 22			



*Weekly wages in sail-cloth manufactories.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Hacklers .....	\$3 87	.....	Weaving, by the piece, 36 yards .....	\$0 19	\$0 21
Women, spinners, twiners, and preparers .....	.....	\$1 53	Hushing or crashing, by the piece, 40 yards .....	19	21
Children .....	.....	76			

The sail-cloth manufactory in Christiania employs about 500 people, and appears based on the Dundee system; earnings much the same as in Scotland, but skilled labor proportionately not so good. Two English foremen receive, respectively, £200 and £300.

*Weekly wages in iron-foundries and machine-shops.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Skilled draughtsmen .....	\$9 68	\$17 42	Pattern-makers .....	\$5 16	\$5 97
Mechanics:			Molders .....	3 23	5 97
Best .....	5 16	6 45	Joiners .....	3 87	5 16
Second .....	3 87	4 96	Joiners' assistants .....	2 56	2 90
Ordinary .....	2 56	2 90	Laborers, carters, &c. ....	2 56	2 90
Blacksmiths .....	5 16	5 81	Apprentices and boys .....	1 29	2 12
Blacksmiths' assistants .....	2 56	3 14	Brass-founders .....	3 22	4 29
Riveters .....	2 56	3 14	Brass-turners .....	3 22	4 29
Holders, &c. ....	2 18	2 78	Millwrights .....	4 29	5 36
Boiler-makers .....	4 29	5 36	Millwrights' assistants .....	2 56	3 22
Boiler-makers' assistants .....	2 56	3 22	Engineers .....	6 17	12 90

*Weekly wages in the building-trade and its branches.*

[Working-hours per day, 10. When on contract, in the summer, men frequently work from 14 to 16 hours per day and receive wages in proportion.]

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
House-carpenters, (according to proficiency) .....	\$3 87	\$6 45	Smiths .....	\$3 87	\$5 36
Sawyers and timber-luggers, (ac- cording to proficiency) .....	2 56	5 14	Brick-makers .....	3 22	3 87
Joiners, (according to proficiency) .....	3 87	5 14	Brick-makers' foremen .....	4 29	6 45
Common joiners .....	3 65	4 49	Common laborers .....	1 94	2 56
Stone-cutters .....	3 87	6 45	Builders' foremen .....	6 45	9 68
Quarrymen, (furnished with tools) .....	2 56	3 87	Journeyman cabinet-makers .....	4 49	7 74
Bricklayers .....	3 87	6 45	Plasterers .....	3 22	3 87
Masons .....	2 86	3 22	Cornice-makers, &c. ....	5 36	8 06
Tile-layers .....	3 87	6 45	Shipwrights .....	5 14	6 45
			Painters .....	2 56	3 87
			Plumbers .....	3 22	4 29

*Monthly rate of wages of railway-officials, 1870.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Traffic department:			Locomotive-department—Cont'd.		
Station-masters, (some with percentages) .....	\$16 13	\$43 02	Firemen .....	\$19 36	\$22 50
Good clerks at principal sta- tions .....	14 03	26 86	Mechanics, smiths, carpen- ters .....	15 00	23 72
Chief telegraph and booking clerks .....	8 47	23 72	Laborers .....	10 65	15 00
Telegraph-clerks at interme- diate stations .....	4 96	8 47	Foremen .....	26 86	37 51
Porters .....		13 07	Permanent way:		
Foremen of goods stations .....	12 83	17 18	Foremen plate-layers .....	15 00	21 54
Horse drivers .....		14 03	Plate-layers .....	12 83	14 03
Head guards, (with mileage and extra for Sundays) .....	15 00	26 86	Laborers .....	10 69	12 83
Under-guards, (with mileage and extra for Sundays) .....	12 83	17 18	Steamboat-service:		
Locomotive department:			Captains .....	26 86	44 77
Engine-drivers .....	37 51	45 25	Mates .....		21 54
			Engineers .....	32 18	37 75
			Firemen .....	14 03	16 21
			Sailors .....	12 83	14 03
			Clerks in chief office and work- shops .....	12 83	43 06

*Weekly wages of shipwrights, rope-makers, and sail-makers.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Foremen .....	\$8 46	\$12 90	Calkers .....	\$2 70	.....
Assistant foremen.....	5 14	.....	Laborers .....	2 54	.....
Master-riggers .....	6 46	.....	Boys .....	1 29	\$1 81
Shipwrights.....	3 23	3 87			

*Monthly rate of wages of miners, quarrymen, &c.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Miners .....	\$7 74	\$8 59	Quarrymen (working per fath- om) of stone.....	\$8 59	12 90
Miners on tatwork or contract ..	8 59	12 90	Smelters .....	9 68	12 90
Cobbers and spallers, (per barrel)	4 29	6 45	Chemical-workers .....	9 68	14 56
Common laborers .....	5 12	5 36			

*Weekly wages of gas workers and fitters.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Firemen.....	\$3 22	\$3 75	Gas-fitters .....	\$2 90	\$5 14
Purifiers .....	2 56	3 87	Layers of main gas and water pipes .....	3 87	5 14
Engineers .....	.....	4 49	Lamp-lighters .....	1 09	.....
Carpenters .....	3 87	.....	Laborers .....	2 13	2 56
Bricklayers .....	3 87	.....	Boys .....	1 61	1 94
Blacksmiths .....	2 90	4 29	Foremen .....	3 87	4 29
Pipe-layers .....	2 90	3 55			

*Weekly wages of journeymen-hatters.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Hat-makers .....	\$3 75	\$4 29	Common workmen .....	\$2 68	\$3 29
Finishers, blackers, &c. ....	4 29	5 36	Foremen .....	6 46	7 52
Engineer-workmen .....	4 29	5 36			

*Weekly wages of printers, bookbinders, and type-founders.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Printers:			Bookbinders—Continued.		
Type-setters .....	\$4 29	\$5 36	Journeymen .....	3 63	\$4 24
Printers .....	3 23	5 36	Girls .....	1 72	2 36
Boys .....	1 07	2 13	Type-founders:		
Girls .....	.....	1 29	Journeymen .....	4 29	6 45
Bookbinders:			Grinders .....	2 14	2 92
Gilders .....	4 84	5 36	Boys .....	54	1 61

*Wages in miscellaneous trades.*

Employment.	Mini- mum.	Maxi- mum.	Employment.	Mini- mum.	Maxi- mum.
Tailors and shoemakers:			Dress-makers, (needle-women), per day .....	\$0 10	\$3 20
Journeymen .....	\$0 64	\$0 84	Office-clerks .....	5 42	53 52
Workmen .....	30	42	Shopmen .....	5 42	26 64
Apprentices .....	18	26	Footmen, (with board and liv- ery) .....	3 20	4 36
Painters and glaziers:			Coachmen, (with board and liv- ery) .....	3 15	4 36
Journeymen .....	42	54	Women-cooks .....	2 42	3 59
Boys .....	20	34	Maid-servants .....	93	2 18
Bakers:			Cartman and horse .....	90	1 32
Journeymen .....	66	84			
Boys .....	18	24			
Errand-boys .....	18	24			

## CONDITION OF THE INDUSTRIAL CLASSES IN NORWAY.

The following is condensed from the report of Hon. C. C. Andrews, United States minister resident at Stockholm, under date of September 24, 1873:

The fact that Norway is united with Sweden under the same crown seems to have led many people into a misapprehension as to the true political situation of the former. Norway is a perfectly independent state, having her own separate written constitution, her own separate legislature, cabinet, administration, system of revenue, army, navy, and flag. Even if Sweden should be engaged in a foreign war, Norway would not necessarily be involved. The Norwegian language, though similar to the Danish, differs much from the Swedish, and it can be said that Norway has a literature peculiarly her own; so also of her coinage, weights, and measures.

The population of Norway in 1871 was 1,753,000. The number of landed estates in 1869 was 147,453, and the number of such estates cultivated by owners was 131,780, which shows a fair division of property as compared with many European states. The same year the public expenses for the support of the poor was in country districts 883,000 species, (dollars,) and in the cities 454,000 species. In the country districts the number of poor was 38 to every 1,000 inhabitants. During the period, 1862-'66, the number of convicted criminals was 11 to every 1,000 inhabitants.

The classification of persons who had the right of suffrage in 1868 is as follows: Farm-owners, 95,764; tenants, (husmen,) 237; nomads, 172; mill and factory owners, 128; artisans, 6,907; journeymen, 394; merchants and shippers, 5,509; clerks, 233; masters and mates of vessels, 3,784; sailors and fishermen, 4,188; wagoners, 164; laborers, 5,023; officials and pensioned officials, 2,265; persons in public service, 2,065, of whom 877 were in church and school service, 216 in the military, and 1,572 in other service.

Next to agriculture the principal industries are navigation, the fisheries, lumbering, mining, and the common hand-trades. The state industrial exhibition at Drammen, which I visited, showed a creditable development of mechanical industry.

## AGRICULTURE.

The common farm-owners in Norway till the soil themselves, with the assistance of their tenants, a class of people called "husmen." The number of husmen in 1865 was 60,330, of whom many since then have emigrated to the United States. They hire from the "gårdman," or farm-owner, a patch of land that will keep one or two cows and a few sheep, for which and the simple cot in which they live they have to pay a certain number of days' work in each season of the year. The manure made at their barns goes upon the farmer's land. They are so much in the power of the owners that they cannot make reasonable bargains for the payment of rent in money. At home they and their families live chiefly on herring and barley-bread. In most of their houses a barrel of sour whey is kept over for the winter, with which to mix their barley-meal. They scarcely have fresh meat, except perhaps at Christmas, and their diet is extremely frugal. In 1869, when Rio coffee was cheap, it was used by them, but since its rise there are many who have to abstain from it. The cots of these husmen will sometimes be seen far up in a little scallop or natural shelf on the steep mountain side, where it seems dangerous to attempt to dwell. Not only are sheep and cattle pastured wherever there is a green patch on the acclivities of the mountains, but even grass is cut and hay made and lowered on ropes or wires.

The condition of the agricultural laborer, as well as his wages, varies, of course, according to whether he is located in a secluded, a poor, a fertile, or a wealthy region. About the Mjösen Lake the soil is so rich as not to require manuring. Undoubtedly there are several districts where the condition of the agricultural laborers is better than that of the husmen above described. But generally their homes are very scantily provided. In some localities, such as Setursdal, in the south central part of the country, people are said to live in the same manner they did three centuries ago. A good deal of agricultural work all over the country is done by women. As in Sweden, women have not by law control of their earnings; and here it may be said that the practice of so much field-work by women causes the house to look less tidy. The practice of scrubbing floors is not so common as in Sweden. In Norway, too, the roofs of the dwellings of the poorer country-people are covered with turf, on which the grass springs up.

At Vossevangen, during the present harvest-season, good agricultural workmen earn at day-work in the field 31 cents a day and board; without board, from 42 to 55 cents a day. At Gudvangen, in the same section of country, the wages of a capable lad of nineteen years at miscellaneous work were 12 species and board for six months, including the summer. In Laerdal, the wages of good farm-workmen are seven species a

month and board during the summer, and 5 species a month and board during the winter, which would be at the rate of 28 cents per day in summer and 21 cents per day in winter, with board. In the vicinity of the larger towns wages would be from 50 to 75 per cent. higher.

## FISHERIES.

The two principal fisheries are the cod and herring. The latter, carried on along the western coast south and north of Bergen, has from the oldest times been considered one of the chief resources of the country. The so-called spring fishery, beginning in January, employs 50,000 persons for about two months, with a product usually of 800,000 barrels. The autumn herring-fishery is less productive; the spring-catch of 1870 was only 160,000 barrels; that of 1869, 680,000 barrels, valued at  $2\frac{1}{2}$  species a barrel. A minute calculation of the expenses of the fishery for that season, made by the governor of the South Bergen Diet, shows that the earnings of each fisherman in the last-mentioned catch were only 3 cents a day, and that the industry is a loss rather than a benefit to the country.

The cod-fisheries appear to be more profitable. They are divided into the sea-cod fishery and the bay or fjord fishery. The latter, of less extent, is carried on during all months of the year, though least in summer. In this division may be classed the Romsdal cod-fishery, which occupies the latter part of the spring, and which in 1870 yielded 3,000,000 fish. The two great sea-cod fisheries are the Lofoden and the Finmark. The former begins about the middle of January and lasts till the middle of April. The average number of persons employed in it is 22,000, with 5,500 boats, and the average catch 20,000,000 fish, being the largest cod that are caught. The Finmark fishery begins later in the spring and finishes about the last of May. The catch amounts to from 11,000,000 to 15,000,000 fish, which are smaller than the Lofoden, and resemble those caught off Labrador.

The clothing of the Lofoden is coarse woolen; also, goat-skin coat and trousers, and long boots up to their hips; usually a tarpaulin-hat, sometimes a red cap. Fish-guano is made from the head and back of the cod, and has become a considerable article of export to Germany.

In 1869, 117 vessels and boats, with 558 men, engaged in the shark-fishery in the Arctic Sea, taking 7,277 barrels of liver for oil, worth 44,000 species. The same year, 268 men with 27 vessels, Hammerfest, cleared 45,000 species in seals and walrus off Nova Zembla and Spitzbergen. The product of the seal-fisheries to the Ice Sea is estimated at 400,000 species a year.

## WAGES OF MECHANICS, THEIR HOMES, EXPENSES OF LIVING, ETC.

In Christiania ship-builders earn 3 marks, (64 cents,) the highest  $3\frac{1}{2}$  marks, (75 cents,) a day, (11 hours' actual work;) gas-workers  $2\frac{1}{2}$  marks (52½ cents) per day, working five days in the week; best bricklayers, by piece, 4 marks (84 cents) to 1 specie (\$1.06) per day. One or two fishing-stations in the south part of the island have nearly 4,000 fishermen.

In the large cotton and woolen factory of Mr. H. Schon, employing 600 operatives, of whom two-thirds are women and one-third are men, the latter earn from 3 species to 6 species a week, and on an average 4 species per week; the former from 2 species to 4 species a week, or on an average 3 species a week. One-third of the operatives are Swedes, and are more economical than the Norwegians. Not more than 10 per cent. of the operatives make deposits in the savings-banks. Perhaps two dozen own the dwellings which they occupy. The proprietor donated 10,000 specie dollars as the basis of a fund for the benefit of aged and enfeebled operatives, on the condition that each operative who is to have the benefit of it shall contribute  $2\frac{1}{2}$  skillings on every 120 skillings (1 specie) of his or her earnings. Four hundred out of 600 operatives are contributors to the fund. At the iron machine-foundry and ship-building works in Throndhjem, employing 300 hands, (with a branch nearer the sea employing 90 hands,) and where the actual working time is 10 hours a day, the work-master has 600 species a year and 12 skillings (11 cents) an hour for extra time. The foremen—one for every shop—have 400 species each a year providing 50 men are under him, and 300 species each a year if less than 50. The highest wages paid to a few skilled workmen are 1 specie (\$1.06) a day; the average wages of workmen are from half a specie (54 cents) to 3 marks (65 cents) a day. Boys receive 15 skillings (11 cents) a day. One day's wages are retained by the employers every week to insure the giving eight days' notice of leaving; the rule as to notice being mutual. Four skillings a week are retained from each man's wages for the sick-fund; and in case of sickness a workman gets 1 specie dollar a week for six weeks, and in case of death 5 species for burial. There is a singing-class connected with the shops. Only a few of the workmen are absent on Monday on account of drink. The manager at the works stated that the number so absent was not enough to cause complaint

The average cost of rent in the neighborhood was stated to be from 2 to 3 species a month for a kitchen (by which is meant a very small cooking-room and not large enough to live in) and living-room.

The following is a brief description of some of the homes of these workmen which I visited in company with the shop-manager, Mr. Olsen :

1. Quarters of a workman about forty-six years old, earning 5 species a week, having a family of a wife and five children, three of whom are small and at home, the other two, respectively sixteen and eighteen years of age, earn their board but not their clothing; all live and lodge at home. The apartments are reached by some rather steep stairs outside of the house from the yard. There is a small entry, a kitchen used by two families, and a living-room 12 feet wide by 15 feet long and 6 feet high. There are two windows, with short lace curtains across the top; a clean scrubbed floor; a bed made up as a single one; a woden sofa or settee that could be used for a bedstead; a table, cupboard, clock, pictures, flowers. There is a cellar to the premises. The rent is 18 species a year, which is cheap, and the same family have occupied the apartments ten years. It requires all he can earn, the workman states, to support his family.

2. The quarters of another family include the same kitchen as the last, a living-room 9 feet wide by 10 feet long and 6 feet high, with close, suffocating air. The workman's family consists of a wife and two small children. He earns 3½ species a week, but lays up nothing. He pays 14 species a year for rent. The floor is clean scrubbed; there are short lace curtains at the window; a white knit cotton cover over a small bureau; also flowers and plants, as in the last family; the housewife had a tidy appearance.

3. The third quarters visited were in a wooden house, owned by the workman, occupant. The house is one and one-half stories high, has a cellar, yard with tidy graveled walks, and out-building or shed. There is a fair-sized kitchen and comfortable living-room, with painted floor, hair-cloth sofa and chairs, remarkably neat white bedspread and calico curtains, many pictures and photographs on the walls, plants in pots, three windows with lace curtains, a very bright, nice-looking wife, and four handsome children. The man pays 10 species a year ground-rent and 3 species for taxes. He lets another of his rooms to a tidy mechanic for lodging. His house cost 330 species; he owes about 100 species on it, and pays 20 species a year. Fuel costs 20 species a year. In his house, as in all others, high, narrow iron stoves are used.

4. The fourth home visited was at a house owned by its occupant, a workman, who earns 6 species a week. There are six rooms, two kitchens, a cellar, out-houses, and yard. The sitting-room 10 feet wide 18 feet long and 6½ feet high, painted floor, strips of carpet over it, neat table and cloth cover, mahogany secretary and drawers, black-walnut-veneered bureau, black hair-cloth chairs and sofa, pictures, lace curtains at the windows, neat and tasteful in all respects; his family, a wife and two children.

At the iron machine and ship-building works at Bergen, which were visited in August, 500 men are employed eleven hours a day in actual labor. The foreman receives 30 species (\$31.80) a month. About 20 of the more skillful hands receive from 4 marks (86 cents) to 1 specie (\$1.06) a day. The average pay of workmen is 3 marks 12 skillings, (76 cents,) to 3 marks 18 skillings, (81 cents,) which is probably as high an average for mechanical labor as is paid in any part of the country. For overtime 12 skillings an hour are paid. Three days' wages are retained by the employers at each weekly payday. Twenty skillings (18 cents) are retained for the sick-fund, and in case of sickness a workman receives 6 marks (\$1.29) a week when sick, and in case of death 10 species for burial.

A couple of skilled workmen concurred in the statement that fresh meat is used by the families of workmen two or three times a week, and costs 12 skillings (11 cents) a pound; that coffee is used there three times a day; that tobacco for chewing (for nearly all Norwegian workmen chew tobacco) costs twenty skillings (18 cents) a week; that workmen, on an average, spend 3 marks (65 cents) a week for spirits or beer, the greater part of the sum being for beer; that some workmen spend 2 species (\$2.12) a week for drink; that including Sundays, holidays, and the time the shops are closed for repairs, usually at the time of the mid-summer or Christmas holidays, there are *eighty non-working days* in the year, which the workman loses; that a majority of workmen do not attend any church; and that only a few save money.

The homes of a foreman and a workman were here visited. The first was in a house owned by the foreman himself, whose family consisted of six members. Their apartments were three rooms, the larger one used for a sitting-room, being 14½ by 12, and 8 feet high; the floor was painted; here were nice-looking lace curtains to the windows, a neat sofa, table, &c., and were better apartments than working-people usually have. Other rooms in the house were rented out.

The other apartments were occupied by the family of a workman, who earns a specie-dollar a day, and were in a cheerless frame building, having no fence about it, nor trace of cultivation, even to a shrub. The apartments were in the second story, and reached by a steep pair of stairs from the rear. First was a fair-sized entry, used by different families; next was the kitchen, 4 by 9, and 8 feet high, in which was a small

iron stove; one window; the floor unpainted and unscrubbed. The living-room was 12 by 12, and 8 feet high, with two windows, but no curtains. On one of the window-seats were several pots of plants. There were some cheap pictures on the walls; a bed made up singly, an iron stove, a small cupboard. There was another room, 5 feet long by about 4 feet wide, without any window or any light, and on the floor, in a heap, were some loose straw and what seemed to be a bed-quilt—a room used for sleeping. There is no cellar to the house. The workman was a man of fair appearance, and apparently well disposed; the wife was of ordinary appearance. They have five children; the eldest a daughter, about eighteen, earns 24 skillings a day in a net factory; a son, fourteen years old, earns 16 skillings a day in a machine-shop. There are three other smaller children. The rent is 22 species a year. These apartments and their appearance were not as good as the average homes of workmen. There were a few other similar tenement buildings a few rods apart, built by the company owning the shops, and intended for four families each. They stand within a few rods of each other. The closets are built only a few feet in rear of the dwellings. The workman just mentioned said his apartments were quite cold in winter, a statement which the appearance of the building seemed to verify.

*Food.*—The following is a good specified statement of the ration for a garrison soldier at Christiania for each day of the week and its cost:

## SUNDAY.

Breakfast: Coffee and bread and butter, and the same for breakfast every morning.  
Dinner: Beef and porridge. Supper: Milk and bread and butter.

	United States cents.
$\frac{1}{4}$ pound fresh meat, at 12 skillings.....	7.87
$\frac{1}{4}$ pound potatoes.....	.87
$\frac{1}{2}$ pound hulled barley.....	.44
$\frac{1}{16}$ pound coffee.....	.87
$\frac{1}{8}$ pound butter.....	1.97
Vegetables.....	.22
$\frac{1}{16}$ gill cream.....	.44
$\frac{1}{4}$ pints milk.....	.66
Bread.....	3.72

17.06

## MONDAY.

Dinner: Cod-fish and milk broth. Supper: Boiled barley-grits and milk; and the same for supper every week-day.

	United States cents.
$\frac{1}{4}$ pound cliff fish, at 7 skillings.....	3.06
$\frac{1}{4}$ pound potatoes.....	.87
$\frac{1}{2}$ pound barley-grits.....	.44
$\frac{1}{4}$ pounds milk.....	1.53
$\frac{1}{16}$ pound coffee.....	.87
$\frac{1}{8}$ pound butter.....	2.30
$\frac{1}{4}$ pound barley-grits.....	.87
Bread.....	3.94
$\frac{1}{16}$ gill cream.....	.44

14.32

## TUESDAY.

Dinner: Salt meat, (pork,) and porridge, with pease.

$\frac{1}{4}$ pound salt meat, at 10 skillings.....	4.37
$\frac{1}{4}$ pound pork, at 16 skillings.....	3.50
$\frac{1}{2}$ pound potatoes.....	.87
$\frac{1}{2}$ pound of barley.....	.87
$\frac{1}{4}$ pound hulled barley.....	.22
$\frac{1}{4}$ pound pease.....	.87
$\frac{1}{16}$ pound coffee.....	.87
$\frac{1}{8}$ pound butter.....	1.53
$\frac{1}{4}$ pint milk.....	.67
$\frac{1}{16}$ gill cream.....	.44
Bread.....	3.94

18.15

## WEDNESDAY.

Dinner: Hash and porridge.

$\frac{1}{2}$ pound salt meat, at 10 skillings .....	2.25
$\frac{1}{2}$ pound salt pork, at 16 skillings .....	1.75
$\frac{3}{4}$ pound potatoes .....	1.50
$\frac{3}{4}$ pound barley-grits .....	.87
$\frac{3}{4}$ pound hulled barley .....	.44
$\frac{1}{16}$ pound coffee .....	.87
$\frac{3}{4}$ pound butter .....	1.53
$\frac{3}{4}$ pound sirup .....	.67
$\frac{3}{4}$ pound dried plums .....	.32
$\frac{1}{16}$ pound onions .....	.11
$\frac{1}{16}$ pound pepper .....	.04
$\frac{3}{4}$ pound juice .....	.87
$\frac{1}{2}$ pint milk .....	.66
$\frac{1}{10}$ gill cream .....	.44
Bread .....	3.94
	<hr/> 15.89

## THURSDAY.

Dinner: Beef and porridge.

$\frac{1}{2}$ pound fresh meat, at 12 skillings .....	7.87
$\frac{3}{4}$ pound potatoes .....	.87
$\frac{3}{4}$ pound hulled barley .....	.44
$\frac{3}{4}$ pound barley-grits .....	.87
$\frac{1}{16}$ pound coffee .....	.87
$\frac{3}{4}$ pound butter .....	1.53
Vegetables .....	.22
1 gill milk .....	.66
$\frac{1}{10}$ gill cream .....	.44
Bread .....	3.94
	<hr/> 17.71

Friday, the same as Tuesday.

## SATURDAY.

Dinner: Soup made of beer and pickled herring.

	United States cents.
$\frac{1}{2}$ pound herring .....	1.31
1 $\frac{1}{2}$ pints beer .....	1.09
$\frac{3}{4}$ pound wheat meal .....	.33
$\frac{3}{4}$ pound sirup .....	.44
$\frac{3}{4}$ pound barley-grits .....	.87
$\frac{1}{16}$ pound coffee .....	.87
$\frac{3}{4}$ pound butter .....	1.53
$\frac{3}{4}$ pound potatoes .....	.87
1 $\frac{1}{2}$ pints milk .....	.67
$\frac{1}{10}$ gill cream .....	.44
Bread .....	3.94
	<hr/> 12.36

The average value of the ration is 18 to 19 skillings, or say 16 cents; but at retail prices it would be about 25 per cent. higher, which would make it cost the working-man 20 cents. Such a ration is, however, a considerably larger and better supply of food than workmen generally have.

At the penitentiary at Thronbjem the fare for each convict on Sunday is: For breakfast, 1 $\frac{1}{2}$  pints beer,  $\frac{1}{2}$  pound rye-bread; for dinner, 1 $\frac{1}{2}$  pints pea-soup,  $\frac{1}{2}$  pound pork,  $\frac{1}{2}$  pound rye-bread,  $\frac{1}{2}$  pint potatoes; for supper, 1 $\frac{1}{2}$  pints barley-meal mush, 1 $\frac{1}{2}$  pints beer,  $\frac{1}{2}$  pound bread. The same quantity of bread, 2 $\frac{1}{2}$  pounds, is allowed every day, or in lieu thereof one-half of the quantity in bolted rye-flour bread. The meat or fish allowance is, on Monday, 2 ounces of herring; Tuesday, 3 ounces of meat; Wednesday, 3 ounces of herring; Friday, 2 ounces of herring; and Saturday, 5 ounces of herring, which are generally made into soup. The supper for every day, except Mon-

day and Friday, is barley mush. The daily allowance of beer is about the same as for Sunday. The cost of the ration, per day, for each man is 12 skillings; and it was the opinion of the superintendent that at retail prices it would cost 24 skillings (21 cents) a day. At Throndhjem is a public eating-house for poor people, where nice barley-grits, excellently cooked, can be obtained very cheap. A portion which when dry is a fraction less than  $\frac{1}{2}$  pound of barley-grits, after being cooked by steam three hours, makes one Norwegian potter, or  $1\frac{1}{4}$  pints; but it is the practice to deal out even a larger measure. For such a quantity one pays 2 skillings. If eaten at the house 2 skillings' worth of beer or sirup can be had to eat with it; so that for little less than 4 cents a palatable and wholesome meal can be obtained. People are accustomed to send to the establishment for boiled grits to eat at home. If we assume that an average workman's family of five members will consume twice the quantity of the ration of a garrison soldier, his subsistence will cost for a year \$146. Rent of dwellings in Christiania is at the rate of 30 species a year for one living-room and a small kitchen in use by another family; and that sum is none too large an allowance to procure such quarters in the larger towns as a workingman's family needs. Allowing \$15 for fuel, \$30 for clothing, and \$15 for miscellaneous, we have in all the sum of \$236 to cover the whole annual expenses for such a family. The average wages of mechanics, probably, cannot be put higher than 60 cents a day, which, for 300 working-days, would amount to \$180; which is \$56 less than what has just been estimated for his expenses. It is therefore obvious that the estimate for expenses is considerably higher, especially in the item of subsistence, than the average mechanic actually incurs. The supply of necessities must be still further diminished if we take into account the items of \$9.36 for tobacco, and \$33.69 for spirits and beer, which, taking the Bergen workman's estimate, are the sums spent in that locality each year by the average workman for those articles. The same incentives to drink prevail among workmen in Norway as in Sweden, though it is not the practice in Norway to use whisky in the house and just before the meal. The Norwegian whisky is a third stronger than the Swedish.

Undoubtedly any thorough reform as to the use of such drink must come from a fixed habit of not drinking; which, if formed at all, is generally in early life amid the influences of a good home. When these continue the habit is likely to continue. As in Sweden, companies are now being formed in various parts of Norway to build better dwellings for the working poor, which is one of many indications that juster notions of their real needs are becoming prevalent.



## LABOR IN DENMARK.

Although Denmark is not extensively engaged in manufacturing, yet the information in regard to labor which appears in the following pages, and which was furnished by the minister resident and the consuls of the United States, will prove interesting.

The following information was prepared for this report by Mr. Vice-Consul Hansen, under date of September 20, 1872 :

## COPENHAGEN.

Copenhagen, which is the capital of Denmark, and a considerable place of commerce in Scandinavia, had, according to the last census of 1870, 181,291 inhabitants, (84,326 of the male, and 96,965 of the female sex;) of these, 18,039 are dependent workers, besides 9,915 day-laborers, and 839 servants without fixed service. Of the 18,039, 14,686 are mechanics, and the rest, 3,353, employed in commerce.

The ordinary time of labor is twelve hours, from 6 o'clock in the morning till 6 in the evening, with a leisure time of two hours for the meals.

The wages for mechanics are about as follows: Machinists, 87½ cents; smiths, 61½ cents; carpenters and joiners, 61½ cents; masons, 78½ to 87½ cents; painters, 61½ cents; shoemakers, 52½ cents; tailors, 43½ to 52½ cents; country workmen and other day-laborers, from 35 to 70 cents a day.

Women working in manufactories are paid 21½ to 26½ cents a day. Children do not generally find much of any occupation in the metropolis, but in return they receive a cheap, and in part a free, and good education at the public schools, which are partly free and partly payment schools.

At the payment-schools of the community 26½ cents a month is paid down for each child, and they are taught, in their mother-tongue, in writing, arithmetic, and religion. The going to school generally commences at the age of seven years and closes at the age of fifteen.

At the beginning of 1871 the number of children attending and bound to go to school, in the metropolis and the suburbs, were 25,191 above the age of six years; of these, 3,262 were above seven years without going to any school, but were taught either at their homes or did not receive any instruction at all, for which reason 1,391 out of 3,262 had to be directed to the public schools for a trial, if it was necessary to direct them to going to school. It was proved that the remaining 1,871 received a proper instruction at their homes; 9,490 children were taught at the free and payment schools of the community; 1,241 at the charity schools; the rest at grammar and other schools subordinated to different authorities.

At the Royal Orphan Asylum, 240 orphans, or at least fatherless children, are instructed without payment; and of these 78 are educated till the fifteenth, sixteenth, or seventeenth year of their age, after which time the boys are bound apprentices to shop-keepers or mechanics by the association, and the girls placed in good families as servants.

The metropolis has several evening and Sunday schools for adults, where mechanics and laborers receive various instructions, partly without payment and partly for a very small contribution.

With regard to the comfort of the laborers, their state of health, &c., it must be remarked that the Danish laborer generally lives airy and cleanly, for which reason many have taken up their abode in the suburbs, where many dwellings for laborers have been erected, the rent of which is from \$2.36½ to \$2.62½ a month for two rooms and a kitchen.

The state of health is generally good, and the district physicians, who are paid by the community, afford medical assistance to the laborers who are not members of the sick-associations, which they can become by paying a small contingent, whereas the hospitals also afford free cure and attendance to poor people.

The educational coercion creates a generally good moral education. Drunkenness is unfrequent among the Danish laboring-classes.

With respect to the present prices of the necessities of life, as well as the weekly expenses for a family, the two filled-up blanks hereto annexed are referred to.

The expenses of a family of the laboring-class vary much according to the earnings, as the saving of anything but small amounts is seldom thought of.

The diversions are cheap and useful, and very much frequented.

The establishment employing the greatest number of workmen in this country is the ship-building and engineering company of Burmeister & Wain, where from 900 to 1,000 workmen find continual employment. Five iron steamships, of about 1,200 tons, with engines of 120 horse-power, and two smaller ones of 300 tons, with engines of 70 horse-power, will, in the course of this year, have been delivered from this establishment, the laborers of which have founded various useful institutions; for instance, a

building-fund, a sick-fund, &c.; and, as it perhaps may be of some interest, I hereby annex two originals, with translations, of the laws of the building association, and last year's account for the same.

Denmark's direct commerce with the United States is very inconsiderable, as the imports and exports, with the exception of petroleum, generally are going via England, &c., and Denmark being no manufacturing country, the chief export consists of grain, flour, butter, and raw produce.

The emigration from here to the United States amounted in 1871 to 1,760 males, 895 females, 765 children, Danes, and 1,065 males, 524 females, 483 children, Swedes, &c.; and to Canada, Australia, &c., 514 males, 230 females, 186 children, Danes, &c.; and the same number is likely to be the result of the emigration this year.

OLAF HANSEN,  
United States Vice-Consul.

COPENHAGEN, September, 1872.

NOTE.—1 Danish rix-dollar (6 a 16 skillings) equal to 52½ cents American gold.

#### ELSINORE.

*Extract of a letter from H. C. Carey, United States consul at Elsinore, Denmark, dated October 30, 1873.*

"The laboring-classes live very frugally and quite differently to what the same classes are accustomed in the United States or in England, where animal-food is more generally consumed. Here the chief food consists of milk-porridge, rye-bread, salt or fresh fish, with now and then a piece of smoked bacon, with coffee mixed with chicory, and beer of a light description, at about 1½ cents a bottle, as beverage. Education for the children of these classes is free, and their house-rent may be put down at \$30 to \$40 per annum.

"Elsinore is not a manufacturing town, but is mainly dependent upon its traffic in furnishing supplies of provisions, &c., to the large amount of shipping annually passing through the sound on its way to and from the several ports in the Baltic. From the most reliable information I have been able to collect, the average weekly expenditure of these working-classes may be placed, I should say, for a family of two adults and two children, at \$4.50 to \$5.50 per week, which amount is eked out, together with the workman's wages, by the earnings from washing or other work done by the wife.

"The monthly wages paid to seamen sailing from our port may be stated as \$16 for able seamen and \$12 for ordinary seamen, while the wages paid to captains or officers may be ranged into two classes: For those employed in the coasting-trade or short voyages the master generally receives \$45 and the mate \$30 per month, whereas those engaged in transatlantic or long voyages are paid differently, the master usually receiving a nominal pay of \$20 per month with 4 per cent. of the gross freight earnings, and the mate a fixed pay of \$35 to \$40 per month.

"While the constantly-recurring strikes among the laboring-classes in England and other countries in Europe have been continually disturbing the labor-market, such has not been the case here to any extent worth mentioning. A small increase has in many cases been granted by the masters, with which the laboring-classes here seem to be quite satisfied."

#### RATES OF WAGES IN ELSINORE.

*Daily wages of the following laborers at Elsinore, Denmark, in the year 1872.*

Blacksmiths .....	\$0 85
Ship-carpenters .....	85
House painters .....	85
House-carpenters .....	65
Masons .....	65
Shoemakers .....	70
Tailors .....	75

Dock-laborers, from \$1.20 to \$1.60.

Hours of labor, 10 per day.

It must be observed that the employment of the dock-laborers is of very uncertain nature, depending in great measure upon the number of vessels entering our port under average, attended with discharging and reloading of their cargoes. There have been times when these laborers have earned as much as \$2 per day, but again there are several days when they are without employment.

*Rate of wages paid for farm and mechanical labor in Elsinore, Denmark, in the year 1873.*

Occupation.	Daily wages.		Monthly wages.
	With board.	Without board.	With board.
<b>FARM-LABORERS.</b>			
Experienced hands in summer .....	\$0 54	\$0 80	\$5 50
Experienced hands in winter .....	40	60	.....
Ordinary hands in summer .....	36	60	4 00
Ordinary hands in winter .....	.....	.....	.....
Common laborers at other than farm-work .....	None..	60	None....
Female servants, (cooks) .....	.....	.....	3 00
Female servants, (house-maids) .....	.....	.....	2 00
<b>SKILLED WORKMEN.*</b>			
Blacksmiths .....	.....	85	.....
Bricklayers or masons .....	.....	80	.....
Cabinet-makers .....	.....	85	.....
Carpenters .....	.....	80	.....
Coopers .....	.....	85	.....
Miners .....	.....	None	.....
Machinists .....	.....	1 00	.....
Painters .....	.....	80	.....
Plasterers .....	.....	80	.....
Shoemakers .....	.....	11 00 to 1 50	.....
Stone-cutters .....	.....	85	.....
Tailors .....	.....	11 00 to 1 50	.....
Tanners .....	.....	80	.....
Tinsmiths .....	.....	80	.....
Wheelwrights .....	.....	85	.....

\* By the day only.

† Piece-work.

Price of board for workmen per week, October, 1873, \$2.50.

HENRY CHARLES CAREY,  
Vice-Consul and Acting Consul.

ELSINORE, November 1, 1873.

*Prices of provisions, groceries, and other leading articles of consumption, also of house-rent and board, in the towns of Copenhagen and Elsinore, Denmark, furnished by Mr. Olaf Hanwen, United States vice-consul.*

Articles.	Retail prices in 1872.	
	Copenhagen.	Elsinore.
PROVISIONS.		
Flour, wheat, superfine.....per barrel*	\$4 72½	\$8 50
Flour, wheat, extra family.....do.	4 20	9 50
Flour, rye.....do.	3 02	7 00
Corn-meal.....do.		
Beef, fresh, roasting-pieces.....per pound†	13½	12
Beef, fresh, soup-pieces.....do.	10½	10
Beef, fresh, rump-steaks.....do.	13½	12
Beef, corned.....do.	14½	
Veal, fore quarters.....do.	11½	10
Veal, hind quarters.....do.	13½	11
Veal-cutlets.....do.	13½	11
Mutton, fore quarters.....do.	11½	10
Mutton, leg.....do.	13½	12
Mutton-chops.....do.	13½	12
Pork, fresh.....do.	09	11
Pork, corned or salted.....do.	12½	12
Pork, bacon.....do.	13½	14
Pork, hams, smoked.....do.	15½	18
Pork, shoulders.....do.	09	
Pork, sausages.....do.	14½	16
Lard.....do.	14½	16
Cod-fish, dry.....do.	05½	06
Mackerel, pickled.....do.		
Butter.....do.	26	27
Cheese.....do.	9 to 14	12

\* Per 100 Danish pounds.

† Danish weight.

*Prices of provisions, groceries, and other leading articles, &c.—Continued.*

Articles.	Retail prices in 1872.	
	Copenhagen.	Elsinore.
<b>PROVISIONS—Continued.</b>		
Potatoes.....per barrel*	\$0 70	\$0 40
Rice.....per pound†	07	06
Beans.....do.	07	18
Milk.....per quart..	03	03
Eggs.....per dozen..	17½	16
<b>GROCERIES, ETC.</b>		
Tea, Oolong, or other good black.....per pound..	52½	63
Coffee, Rio, green.....do.	21	25
Coffee, Java, roasted.....do.	35	32
Sugar, good brown, candy.....do.	16	11
Sugar, yellow, C.....do.	14 to 15	12
Sugar, coffee, B.....do.	14 to 15	12
Molasses, New Orleans.....per gallon.....		80
Molasses, Porto Rico.....do.		
Sirup.....do.	35	
Soap, common.....per pound‡	08	06
Starch.....do.	10½	15
Fuel, coal.....per ton	7 35	7 50
Fuel, wood, hard.....per fathom§	8 40	8 00
Fuel, wood, pine.....do.	6 30	7 00
Oil, coal.....per gallon.....	52	
<b>DOMESTIC DRY GOODS, ETC.</b>		
Shirtings, brown, 4-4, standard quality.....per yard..	11½ to 13	18
Shirtings, bleached, 4-4, standard quality.....do.	12 to 14	
Sheetings, brown, 9-8, standard quality.....do.	90½ to 21½	22
Sheetings, bleached, 9-8, standard quality.....do.	12 to 14	26
Cotton flannel, medium quality.....do.	21 to 30	
Tickings, good quality.....do.	21 to 30	
Prints, Merrimack  .....do.		
Monseline de laine.....do.	20 to 30	
Satinets, medium quality.....do.	24 to 35	
Boots, men's heavy.....do.	4 20	5 00
<b>HOUSE-RENT.</b>		
Four-roomed tenements.....per month..	7 50 to 10 50	4 50
Six-roomed tenements.....do.	16 00 to 26 50	7 50
Two-roomed tenements.....do.	2 50 to 3 00	
<b>BOARD.</b>		
For men, (mechanics or other workmen).....per week..	2 10 to 3 00	2 50
For women employed in factories.....do.	1 00 to 1 50	

\* Per 100 Danish pounds.

† Danish weight.

‡ In August.

§ Per fathom of 6 feet by 6 feet by 2 feet.

|| Not manufactured.

Average weekly expenditures of two families in Copenhagen, one consisting of two adults and two children, the head of which is a mechanic, and the other consisting of two adults and three children, the head of which is a shoe-maker.\*

#### TWO ADULTS AND TWO CHILDREN.

Weekly earnings in 1872, \$5.25.	Cost or value.
Flour and bread.....	\$0 44
Fresh, corned, salted, and smoked meats.....	44
Butter and lard.....	67½
Cheese.....	10½
Sugar.....	21
Milk.....	25
Coffee.....	17

\*From the above list will be observed, that the family in question do like many or most others, live upon bread, butter, and coffee, with milk and sugar, in preference to meat and potatoes, but the wife is often engaged in larger houses for washing, cleaning, &c., where she will get a little substantial food.

Tea.....	\$0 07
Fish, fresh and salt.....	17
Soap, starch, salt, pepper, vinegar, &c.....	12
Eggs.....	5
Potatoes and other vegetables.....	16
Fuel.....	48
Oil or other light.....	10½
Other articles.....	8½
Spirits, beer, and tobacco, (if any).....	50
House-rent.....	87
For educational, religious, and benevolent objects.....	13
<b>Total weekly expenses.....</b>	<b>5 03½</b>
<b>Clothing per year.....</b>	<b>26 25</b>

## TWO ADULTS AND THREE CHILDREN.

*Weekly earnings in 1872, \$3.90, besides the earnings of the wife, amounting to 75 cents.*

	Cost or value.
Flour and bread.....	\$0 82
Fresh, corned, &c., meats.....	15
Butter.....	71
Cheese.....	18
Sugar.....	10½
Milk.....	35
Coffee.....	26½
Fish.....	15
Soap, salt, pepper, vinegar, &c.....	4½
Potatoes and other vegetables.....	12
Fuel.....	17½
Oil or other light.....	5
Other articles.....	7
Spirits, beer, and tobacco.....	17½
House-rent.....	65
For educational objects, (one child at school).....	13
<b>Total weekly expenses.....</b>	<b>4 14½</b>
<b>Clothing per year.....</b>	<b>20 00</b>

## ECONOMIC CONDITION OF THE WORKINGMEN OF DENMARK.

*Dispatch of Hon. M. J. Oramer to the Department of State.*

LEGATION OF THE UNITED STATES,  
Copenhagen, November 9, 1874.

SIR: Under the title of "information concerning the economic condition of the workingmen of the kingdom of Denmark," the Danish minister of the interior has published the result of inquiries made in three classes of circulars issued by him under date of October 11, 1872.

The first class of these circulars was prepared with special reference to procuring information concerning the economic condition of artisans, mechanics, and factory-hands, and was intended to be filled up by the employés; the second was designed to procure information concerning the economic condition of the laborers in the country, and was intended to be filled up by the parish and town councils. The intention of the third class was to procure information: 1. Concerning the amount necessarily required annually for the support of a workingman with a family, and for other necessary expenses, such as taxes, &c. 2. Concerning the debts of workingmen and the causes thereof.

Although the information obtained is not as full and complete as could be desired, yet it furnishes a tolerably reliable insight into the economic condition of the laboring classes in the kingdom of Denmark.

I have, therefore, prepared a condensed "*statement*" of this information, which I have the honor to transmit to you, herewith inclosed.

I have the honor to be, &c.,

M. J. CRAMER.

Hon. HAMILTON FISH,  
*Secretary of State, Washington, D. C.*

#### THE ECONOMIC CONDITION OF THE LABORING CLASSES IN DENMARK.

From the returns made under the first class of circulars it appears that there are 40,209 laborers, viz: 28,021 males over eighteen years of age, 3,428 females, 6,811 youths from thirteen to eighteen years of age, and 1,949 children. Of the males, 14,265 are married; of the females, 1,904.

#### AVERAGE EARNINGS.

The annual average earnings in large factories in Copenhagen was: for men, 410 rix-dollars,\* (\$215.25;) for women, 169 rix-dollars, (\$88.72.) For other mechanics, artisans, &c.: for men, 357 rix-dollars, (\$187.42;) for women, 143 rix-dollars, (\$75.07;) and in the provincial cities and towns, under the same division, respectively, 300 (\$157.50) and 135 (\$70.87) rix-dollars, and 357 (\$187.42) and 96 (\$49.87) rix-dollars, and in the country, under the same divisions, respectively, \$116.10 and \$49.14, \$105.30 and \$43.74.

The average number of daily working-hours for both children and adults is from twelve to thirteen, including the time consumed in short rests and for meals. In some instances it is, however, higher, and in some cases it is higher for women than for men, and for children higher in the country than for children in cities. The average time allowed for meals is about two hours per day.

The total amount of wages paid, annually, to the 40,209 laborers is over eight millions of rix-dollars, (\$4,200,000.) Supposing this number of laborers to be only one-half of the number of laborers in Denmark, it will then appear that sixteen millions rix-dollars (\$8,400,000) are paid to them annually as wages, that is, according to the rate of wages paid in 1872, which now is somewhat higher than then.

As to extra earnings, very meager information has been received, yet in many instances such extra wages by extra labor are made. Besides, the housewife, in many cases, earns something which contributes a not inconsiderable amount to the support of the family.

It does not often happen that laborers coming under this class of circulars have a share in the profits of factories, &c. In place of this they have a share in a fund established, to render them assistance in case of sickness or death.

The information coming under the second class of circulars may be grouped as follows:

The total number of tenants, subtenants, &c., within the kingdom is 101,832, making about 15 per cent. of the male inhabitants. This, it must be remembered, has reference only to the population in the country, and not in cities and towns. Under the term tenants are included those who own their cottages, with, perhaps, one-third of an acre of land connected with it. Among the 101,832 tenants, &c., are about 23,785 traders and mechanics, &c., or about 25 per cent. of the entire class.

#### WAGES OF FARM-LABORERS.

With regard to the average wages paid to farm-hands it may be observed that those in Jutland receive during the summer season higher wages than those in other parts of the kingdom, while the contrary is the case during the winter season, with the exception of female laborers, who, in Jutland, receive, without boarding, 35 skillings, (17 cents, gold,) and in other parts a little over 23 skillings (11 cents) per day.

The average number of working-hours per day is, during the summer season, about 14, and during the winter season about 10. Deducting from these the hours devoted to meals, &c., and the average number of hours devoted to actual labor throughout the kingdom will be about 11 during the summer season and 8 during the winter season.

With regard to the question: Do these farm hands receive other emoluments besides their regular wages, such as milk, pasture for a cow, turf, &c.† it may be said that in a few counties they do receive such emoluments, averaging from 10 (\$5.20) to 40 (\$21) rix-dollars per annum. And yet, properly speaking, these emoluments cannot be regarded as extra wages, for they are generally stipulated in the contract as part of the wages. The question: Do the laborers earn anything by extra work; and, if so, how much? is partly answered in the affirmative and partly in the negative. Some, besides their ordinary daily work, spend a few extra hours in making baskets or plaiting mats,

\* A rix-dollar is equivalent to 52½ cents, gold.

&c., and earn thus from 5 (\$2.62) to 40 (\$21) rix-dollars per annum. Likewise, many housewives, by extra domestic industry, such as washing, sewing, knitting, spinning, &c., earn from 20 (\$10.50) to 40 (\$21) rix-dollars per annum. To the question: How much of their time do these housewives devote to labor outside the house? the answer is that only during the time of the harvesting, of taking up potatoes and of turf-cutting, they are employed out of the house.

The question: At what age and to what kind of work are the children hired out? has been answered thus: They are hired out from the seventh to the tenth year of their age, principally to watching cattle in pastures. The total number of children thus hired out is 33,436. Besides watching cattle, they are also employed in potato-digging, fruit-plucking, turf-cutting, &c.

The question: Whether the farm-hands, &c., have employment the whole year round? has generally been answered in the affirmative. There are some districts, however, where during the winter season labor is rather scarce, and where, consequently, they can earn little or nothing during at least one month of the year.

The question: Whether there are, in the various districts, endowment funds for assisting the sick and the aged? has been generally answered in the affirmative; but the question: What proportion of the laborers become *self-supporting* or independent of assistance? has been misunderstood, and hence no reliable data have been furnished in regard to it.

#### EXPENDITURES.

The information sought under the third class of circulars relates to the *necessary expenses for support, &c., of the families of the laboring-classes.*

For those in Copenhagen the minimum may be placed at 254 rix-dollars, (\$133.35;) that is, for rent, 36 rix-dollars, (\$18.90;) for food, 192 rix-dollars, (\$100.80;) for clothing, 15 rix-dollars, (\$7.87;) for tobacco and whisky, 11 rix-dollars, (\$5.77;) and the maximum at 615 rix-dollars, (\$322.87;) that is, for rent, 120 rix-dollars, (\$63;) for food, 365 rix-dollars, (\$191.62;) for clothing, 78 rix-dollars, (\$40.95;) for tobacco and whisky, 52 rix-dollars, (\$27.30;) while in most cases the expenses vary from 350 (\$183.75) to 405 (\$212.62) rix-dollars per annum. To the question: In what proportion are the earnings of a laboring family sufficient to afford them a support adequate to their condition? the answers received from both the employers and employes vary greatly. The former believe these earnings to be generally sufficient, while the latter contend that they are not. This difference of opinion is accounted for partly from the fact that five among the employers show special care for the well-being of their employes, (the latter of whom earn enough for a decent support,) and partly from the fact that some of the latter send their children to paid-schools, and partly from the fact that a part of their earnings is applied to pay interest on debts incurred in the course of time.

The question: To what extent do the laboring-classes participate in public amusements? has been variously answered. It appears that in one district they engage in them very sparingly; while in nine other districts the young people are said to engage in them to a very considerable extent.

Some of the people, in themselves filling up these circulars, put down their expenses for public amusements from 4 (\$2.10) to 6 (\$3.15) rix-dollars per annum. The preceding account of the expenses of laboring-families refers only to those in the city of Copenhagen.

The annual expenses of laboring-families in provincial towns and cities range from 210 (\$110.25) to 365 (\$191.62) rix-dollars; that is, for rent, from 20 (\$10.50) to 40 (\$21) rix-dollars; for food, from 150 (\$78.75) to 250 (\$131.25) rix-dollars; for clothing, from 30 (\$15.75) to 50 (\$26.25) rix-dollars; for tobacco and whisky, from 10 (\$5.25) to 25 (\$13.12) rix-dollars. The question: How far are the earnings of the laboring-classes in these cities and towns sufficient for their support? has been answered that in most cases such earnings are sufficient; though the answers received from several cities and towns show that they are insufficient. With regard to the question, Whether these laboring-classes are in debt? the answers are very unfavorable; and only very few incur any expenses whatever for the education of their children.

With regard to the amount of expenses for the laboring-families in the country, the information obtained shows that it ranges annually, for rent, from 10 (\$5.25) to 16 (\$8.40) rix-dollars; for food, from 150 (\$78.75) to 180 (\$94.50) rix-dollars; for clothing, from 20 (\$10.50) to 50 (\$26.25) rix-dollars; for tobacco and whisky, from 10 (\$5.25) to 15 (\$7.87) rix-dollars. The question, Whether the earnings are paying the expenses? is generally answered in the affirmative; though in a number of cases the answer is, "scarcely sufficient." As to whether the laboring-classes in the country districts are in debt, the information received shows a large number of them to be in debt. They spend nothing extra for the education of their children, nor do they often engage in public amusements.

As to the age at which laborers marry, it may be said that the majority of both sexes marry between the twenty-fifth and thirtieth year; some even below the age of twenty-five; and in most cases before they had "laid up" anything. Hence, many commence their married life with debt.

## LABOR IN THE NETHERLAND.

The Netherlands, or Low Countries, so called from their natural conformation, now composed of North and South Holland, have a population of 3,515,360. The commerce of the country, though not as great as formerly, is still quite extensive. There are important silk manufactories at Amsterdam, Haarlem, and Breda. Woolen is principally manufactured at Tilburg; linen and cotton in many parts of the two provinces. The earthenware works at Delft are extensive and celebrated. Schiedam is noted for its production of ardent spirits, particularly of gin. Butter and cheese are among the chief articles of export.

An interesting branch of industry is the manufacture of paper, and the manufacture of bricks and tiles is also worthy of note. This remarkable country largely rewards the skill and labor of the agriculturist; the annual production of cereals amounting to 16,000,000 bushels, and of potatoes 20,000,000. But the fisheries are the most famous for their extent and productiveness, especially the herring-fishery, which has been carried on since the twelfth century, and has been termed the "Dutch Gold Mine." The Netherlands possess little or no mineral wealth. Among the various branches of industry pursued ship building holds the first place. The Dutch East Indiamen, in the time of wooden ships, were justly renowned. Societies "for the promotion of the public good," as they are styled, abound throughout the provinces, for the establishment of schools, hospitals, asylums, and other works of public utility. Institutions for the relief of the destitute and suffering are abundant, though in general the poor are taken care of by the churches to which they belong. There are forty institutions for employing poor laborers. Education is provided for by the government.

In Holland the laws of nature seem to be reversed; the sea is higher than the land. The greater portion of the country has been perseveringly rescued from the water by the continued efforts and ingenuity of man. The dikes and hydrographical works between Dallart and the Schelde are estimated to have cost \$1,500,000,000. The people of the Netherlands, though placed apparently under circumstances the most unfavorable for the accumulation of wealth, overcame one difficulty after another with matchless perseverance, until they rendered their country the center of European commerce, and diffused the appliances of comfort and the means of enjoyment among the lowest orders of the people.

## RATES OF WAGES.

As the author was prevented by want of time from visiting this interesting country, he is indebted to others for even the meager information in regard to labor which appears in the following pages.

*Wages in North Holland.*

Place, occupation, &c.	Wages per week.	Hours of labor.
<b>HELVESIN.</b>		
<b>Steam spinning-factory:</b>		
Weavers.....	\$3 20 to \$4 00	} Five days of 12 hours and one day of 6½ hours.
Spinners.....	4 40 to 5 60	
Boys under 16 years.....	70 to 2 00	
Women.....	2 00 to 3 20	
Girls under 16 years.....	60 to 1 60	
<b>Carpet manufactories:</b>		
Men's average salary.....	2 80	} 8 to 10 hours per day.
Boys' average salary.....	1 50	
<b>Manufactory of moltons:</b>		
Average rate of wages.....	5 00	



*Wages in North Holland—Continued.*

Place, occupation, &c.	Wages per week.	Hours of labor.
LAREN.		
Hair floor-cloth manufactory:		
Weavers.....	\$5 00	} 13½ hours per day.
Spinners.....	3 00	
NAARDEN.		
Bale-goods factory:		
Men .....	\$6 00 to 9 00	} 12 to 15 hours per day.
Boys and girls .....	2 00 to 3 00	
ZAANDAM.		
Spinning-factory:		
Piece-work.....	6 cts. for ¼ kilog.	12 hours per day.
KROMMENIE.		
Machine-yarn-spinning factory:		
Weavers.....	1 florin 10 c.	14 hours per day.
The weavers who work at home from four to seven days receive from.....	\$2 00 to \$3 20	
HAARLEM.		
Gauze-factory:		
Weavers.....	2 40 to 2 52	
Soakers.....	24 to 54	
Ribbon-weaving factory:		
Weavers.....	1 60 to 4 80	

*Return respecting the spinning and weaving factories in South Holland.*

Commune.	Kind of factory.	Hours of labor.	Rate of wages.	Produce.
Alblasserdam..	1 steam spinning and weaving factory.	12 hours a day.	Average full-grown men, 44 cents per day; for children and spinsters, 8 to 24 cents per day.	In the last few years rather decreasing than increasing.
Griessendam...	2 hand weaving factories, principally for sail-cloth.	Winter 8 a. m. to 8 p. m.; summer 5 a. m. to 8 p. m.	Winter, 50 cents per day; summer, 70 cents per day.	As the manufacture is on a small scale no particulars can be given.
Gouda .....	1 steam cotton-spinning factory.	12 hours a day.	For men, from \$2 to \$6 per week; for women, from \$1.20 to \$2.40 per week.	Increased at the rate of 15 per cent. in 1871.
Do.....	30 cotton-factories where the yarn is spun by hand.	Summer, 13 to 14 hours; winter, 10 to 11 hours.	In this factory work is done by piece, at the rate of from \$2.40 to \$3.20, for some \$3.60, per week; turners and children receive 32 to 60 cents per week.	Decreasing.
Krimpen on the Lek.	2 tow-spinning factories.	From sunrise to sunset.	40 cents per day.....	Tolerably regular.
Leyden .....	1 layet factory...	11 hours a day.	From \$0.80 to \$5.60 per week..	Increasing.
Do.....	1 layet factory...	11½ hours a day	From \$0.60 to \$6.40 per week...	Fairly on the increase.
Do.....	1 grain seed and damask factory.	10½ hours a day deducting 2½ hours rest.	For all laborers, average rate of wages \$1.60 per week.	Increasing.
Do.....	1 flag duok factory.	10 to 12 hours a day.	From \$0.80 to \$4.80 per week..	Regular.
Do.....	1 blanket factory.	12 hours a day.	Boys and girls, \$0.60 to \$1.20 per week; work-people paid by piece, \$1.60 to \$4 per week; weekly wages, \$2.40 to \$4.80.	Increasing.
	Woolen-cloth and blanket factory.	11 hours a day.	For men, \$2 to \$8 per week; boys from 14 to 16, \$1.20 to \$1.60 per week; women, \$1.20 to \$1.80 per week; girls from 14 to 16, \$0.80 to \$1.20 per week.	Increased by 20 per cent. in the last five years.
Nieuwerkerk on the Yssel.	3 fine-cotton-spinning factories.	11 hours a day.	Average 60 cents per day.....	Moderate.
Rotterdam.....	1 sail-cloth weaving factory.	10 hours a day.	Paid by piece, on an average \$1.20 per week.	Increasing.
	2 hair-cloth and jute-weaving factories.	10 hours a day.	Paid by the piece, the wages on an average \$4 per week.	Increasing.

*Weaving-factories.*

Districts.	Number.	Working hours.	Number of workmen.				Average wages per day.			
			Above 16.		Below 16.		Above 16.		Below 16.	
			M.	F.	M.	F.	M.	F.	M.	F.
Aalst .....	19	10	60	16	6	7	<i>Cents.</i> 28	<i>Cents.</i> 16	<i>Cents.</i> 12	<i>Cents.</i> 8
Asten, (woolen and cotton) .....	1	10	26	.....	.....	12	48	.....	.....	14
Bladel .....	1	.....	10	1	10	.....	40	.....	12	.....
Bortel .....	18	9-10	156	28	64	11	42	28	18	14
Breda, (carpet-weaving) .....	1	11	3	.....	3	.....	56	.....	7	.....
Geldrop .....	15	13	395	95	97	30	40	26	20	16
Gemert .....	8	10	50	.....	.....	.....	28	.....	.....	.....
Heeze, (edgings) .....	2	9	14	.....	.....	13	40	.....	20	14
Helmond .....	13	10	384	115	26	88	66	26	26	16
Hertogenbosch, (5 ribbon, 4 lace, 1 lamp-cotton, 1 carpet-factory.) .....	11	10-11	137	.....	43	.....	44	.....	14	.....
Oirschot .....	1	10	7	.....	2	1	32	32	.....	.....
Oosterhout .....	1	12	7	3	2	3	36	20	24	14
Stratum, (woolen) .....	3	13	105	10	4	4	40	30	14	12
Stryp, (linen) .....	1	11	90	18	18	12	40	34	16	16
Tilburg .....	727	10-11	1,600	.....	160	.....	44	.....	26	.....
Tongelle .....	1	11	8	.....	.....	.....	32	.....	.....	.....
Uden .....	2	10	24	10	1	6	28	24	16	12
Veghel .....	1	10-11	29	9	1	1	2	19	20	20
Waalse .....	14	10	50	4	12	3	27	16	12	8
Woensel .....	2	10	14	.....	.....	1	34	.....	.....	20
Zecist .....	9	10	63	11	18	.....	28	16	12	.....

*Spinning-factories.*

Breda .....	1	15	5	4	.....	6	25	25	.....	38
Dongen .....	1	12	17	26	5	30	54	40	20	26
Eindhoven, (wool-spinning) .....	1	13	22	3	3	1	32	20	16	16
Geldrop .....	4	13	44	26	24	13	38	28	16	16
Stratum, (wool-spinning) .....	2	13	4	.....	6	5	50	30	14	12
Tilburg .....	52	10-11	1,232	646	268	177	46	26	22	20
Woensel .....	1	10	8	.....	.....	4	34	.....	.....	20

\* In these numbers are included the weavers who work at home.

## RATES OF WAGES IN AMSTERDAM.

Statement showing the rate of wages and the hours of labor of some of the principal factories and trades in Amsterdam in 1872.

Occupation.	Hours of labor.	Paid per—	Average am't of wages per week.	Remarks.
<b>Blacksmiths:</b>				
Ordinary workmen .....	10½	Hour .....	\$3 16 to \$3 78	
Competent workmen .....	10½	do .....	4 40 to 5 06	
<b>Bread-factories:</b>				
Bakers' foremen .....	12	Week .....	5 04	
Workmen .....	12	do .....	3 40 to 4 20	
<b>Millers:</b>				
Foremen .....	12	do .....	6 84 to 8 04	
Workmen .....	12	do .....	3 40 to 3 60	
<b>Builders .....</b>	12	do .....	6 84	
<b>Breweries:</b>				
Foremen, (Germans) .....	Unlimit'd	Month .....	7 88 to 13 92	
Brewers, (Germans) .....	12 to 15	do .....	4 62 to 6 52	
<b>Engineers, (Dutchmen) ..</b>	13	Week .....	6 04	
Carters, (Dutchmen) .....	13 to 14	do .....	3 84 to 6 04	
Laborers, (Dutchmen) .....	12	do .....	3 60 to 4 24	
Carpenters, (Dutchmen) ..	11	do .....	4 40	
<b>Bricklaying:</b>				
Bricklayers .....	12	Hour .....	4 32 to 5 08	
Hodmen .....	12	do .....	3 60	
Assistants .....	12	do .....	2 88 to 3 24	

These men work 7 days per week, Sundays included. In one particular establishment they have a small share in the profits, amounting to about \$4 per annum for ordinary workmen.

These men are provided with lodgings and have their victuals (which are brought by themselves) cooked for them, independent of their wages.

These men have only their wages.

These men, during the summer months, often work 15 hours per day; but in winter, in hard frosts, they are sometimes entirely out of work.

Statement showing the rate of wages and the hours of labor, &c.—Continued.

Occupation.	Hours of labor.	Paid per—	Average am't of wages per week.	Remarks.
Brushmakers .....	10 to 12	Piece .....	\$2 40 to \$4 84	
Cabinet-making:				
Cabinet-makers .....	11	Hour .....	3 60 to 5 32	
Superior workmen, (carvers and upholsterers.)	11	do .....	6 64 to 7 96	
Candle-factories:				
Foremen .....	12	Week .....	4 32	
Workmen .....	12	Piece .....	3 36	
Females .....	10	Hour .....	1 20 to 2 40	
Engine-driver .....	10	Week .....	4 84	
Carpenters:				The men employed in the government-yard are, for the most part, engaged permanently, and the married men have to pay 40 cts. per week to the widows' fund.
House .....	12	Hour .....	3 60 to 4 32	
Ship .....	10	Day .....	4 84	
Ship, (in governm't-yard) ..	10	Week .....	4 00	
Coach-builders:				
Smiths .....	11	Hour .....	2 64 to 7 96	
Builders, painters, and upholsterers.	11	do .....	2 64 to 6 64	
Diamond cutters and polishers.	12	Karat & piece	10 08 to 32 24	
Distillers .....	11	Week .....	2 40 to 4 84	These men are often out of work.
Dock-laborers .....	10	Day .....	4 84 to 7 94	
Gas-works:				These men work 7 days per week, Sundays included.
Foremen .....	12	Week .....	4 84 to 7 94	
Stokers .....	12	do .....	4 40 to 5 08	
Purifiers .....	12	do .....	2 60 to 5 64	
Coal-carters .....	12	do .....	3 60 to 4 04	
Coal-quenchers .....	12	do .....	3 14	
Syphon-pumpers .....	12	do .....	3 20 to 3 72	
Gate-keepers .....	12	do .....	3 20	
Lamp-lighters .....	6	do .....	1 80 to 2 64	
Smiths .....	10	do .....	2 64 to 4 84	
Hammer-men .....	10	do .....	1 92 to 2 40	
Bricklayers .....	10	do .....	3 12 to 3 84	
Hodmen .....	10	do .....	2 40	
Carpenters .....	10	do .....	2 88 to 3 36	
Coopers .....	10	do .....	2 88	
Tinmen .....	10	do .....	2 40 to 4 24	
Turners .....	10	do .....	3 00 to 3 36	
Fitters .....	10	do .....	2 00 to 4 08	
Motor-inspectors .....	10	do .....	3 12 to 3 36	
Occasional-laborers .....	10	do .....	2 00 to 3 60	
Gunsmiths .....	11½	Day .....	3 60 to 4 84	From 72 cents to \$6.16 when working extra hours.
Hatters .....	12	Piece .....	4 00 to 4 84	
Iron-works .....	11	Day .....	72 to 4 84	
Lumpers .....	8 to 12	do .....	4 84	
Navvies .....	11	do .....	4 84 to 6 04	
Painters and glaziers .....	10	Hour .....	4 20	
Plumbers .....	11	Hour and day	2 40 to 3 20	
Printing:				
Compositors .....	10	Hour, week, or piece.	3 20 to 4 00	
Pressmen .....	10		3 60 to 10 08	
Railways:				These men work 7 days per week, Sundays included.—The engine-drivers are employed two-thirds of the week in driving engines and are kept in reserve the other third. Every third week the engines are examined, and during that time the drivers are paid as if actively employed.
Watchmen .....	15	Day .....	2 80 to 3 92	
Pointsmen .....	15	do .....	3 08	
Guards .....	15	Week .....	3 80 to 5 12	
Engine-drivers .....	15	Day .....	3 72 to 7 04	
Engine-fitters .....	11	Hour .....	5 44 to 6 20	
Laborers .....	15	Day .....	2 80 to 2 98	
Segar-makers .....	10	1,000 .....	3 60 to 7 94	Of ordinary kinds, a man can make from 500 to 700, and of the better sorts from 200 to 300 per day. He is assisted by a boy, to whom he has to pay from 40 cents to \$1.20 per week out of his wages.
Shoemakers:				
Ordinary workmen .....	Unlimit'd	Piece .....	2 40 to 2 20	
Superior workmen .....	do	do .....	3 60 to 4 84	
Stone-masons .....	11	Hour .....	4 84	
Sugar-refiners .....	11	Week .....	5 00 to 5 24	
Tailors .....	Unlimit'd	Hour & piece	4 84 to 5 64	
Tanners .....	11½	Week .....	2 40 to 3 40	
Upholsterers .....	10	Hour and day	3 60	

*Statement showing the rate of wages and the hours of labor, &c.—Continued.*

Occupation.	Hours of labor.	Paid per—	Average am't of wages per week.	Remarks.
Workmen employed on the Amsterdam Canal and Harbor Works:				
Divers .....	11	Day .....	\$7 24	36 cents per hour when under water.
Masons .....	11	do .....	4 84	
Plate-layers .....	11	do .....	4 56	During the summer months these men often work 14 hours per day, and then earn about £1 per week. When employed on extensive works they are usually paid per mile, the wages varying according to the nature of the soil.
Trimmers .....	11	do .....	4 84	
Blacksmiths .....	11	do .....	6 04	
Strikers .....	11	do .....	4 44	
Stokers .....	11	do .....	4 84	
Carpenters .....	11	do .....	5 32	
Sailors .....	11	do .....	4 84	
Sawyers .....	11	do .....	4 84	
Laborers .....	11	do .....	4 32	
Horse-keepers .....	11	do .....	4 84	
Horse-drivers .....	11	do .....	4 56	
Horse-drivers, (Englishmen.)	11	do .....	5 44	
Watchmen, (Englishmen)	11	do .....	4 08	
Boys, (English) .....	11	do .....	1 68	
Pile-drivers, (Englishmen)	9	do .....	3 12	

In consequence of the continually increasing price of food and house-rent, a general rise of wages has been effected during the last few months, without causing any ill-feeling between the employers and their workmen, and in many instances the former, well aware of the evil results of strikes to both parties, have anticipated the reasonable wishes of the latter by allowing them a higher rate of wages, without awaiting any demonstration on the part of the men. Of late the system of payment by the hour has become pretty general, and works well, as by that means there is hardly any fear of conspiracies or combinations of workmen for the purpose of coercing their employer to reduce the number of hours of labor, the men having an interest in working as long as their employers will permit. The question then naturally arises how do Dutch workmen and their families manage to live on these small incomes in such an expensive place? In reply I must, in the first place, explain that to the industrial classes in Holland, animal food, cheese, eggs, beer, currants, raisins, sugar, &c., are luxuries of which they partake only on Sundays, and then but sparingly, and in some instances not at all. They live chiefly on potatoes, cheap vegetables, such as carrots, turnips, onions, cabbage, &c., stewed with lard, and bread, both wheat and rye. When cheap vegetables are not procurable, they vary their meal by dried pease and beans of various kinds, or rice, barley, and flour, prepared with butter milk and treacle. The rent of a single room now varies from 48 to 84 cents per week, and a floor of the same sized rooms can be obtained at from 72 to \$1.20.

### WAGES IN ROTTERDAM.

*Statement showing the rates of wages and the hours of labor in Rotterdam in 1872.*

Trades.	Hours of labor.	Paid per—	Average am't of wages per week.
Bakers .....	12	Week .....	\$3 60
Blacksmiths .....	10	Hour .....	\$2 88 to 4 32
Brewers .....	12 to 15	Month .....	7 24 to 7 04
Bricklayers .....	10 to 12	Hour .....	3 96
Butchers .....	10	Week .....	4 40
Cabinet-makers .....	12	Hour .....	4 32 to 5 80
Carpenters .....	12	do .....	3 52 to 4 32
Distillers .....	11	Week .....	2 40 to 4 00
Dock-laborers .....	10	Day .....	3 60 to 4 84
Painters .....	10	Hour .....	3 60
Plumbers .....	10	Week .....	3 20 to 3 60
Printers .....	10	do .....	3 20 to 4 84
Railway-guards .....	10	do .....	3 80 to 5 12
Railway-laborers .....	10	Day .....	2 40 to 2 88
Sail-makers .....	10	do .....	2 88
Shoemakers .....	Unlimit d	Piece .....	2 40 to 3 60
Stone-masons .....	10	Hour .....	3 84
Sugar-refiners .....	10 to 12	Week .....	3 60 to 4 84
Shipwrights .....	10	Day .....	3 84 to 4 32
Tailors .....	Unlimit d	Hour or piece .....	4 84 to 5 64
Upholsterers .....	10	Day .....	3 60

## DUTCH ARTISANS—DIAMOND-CUTTING.

[From the British Almanac, 1874.]

In the Netherlands the rates of wages approximate somewhat more closely to those current in England, but the cost of house-rent and provisions is greater, so that, in fact, every 20s. earned in Holland does not go so far as 15s. in this country. The Dutch artisans are, as a rule, steady, patient, and skillful, but their work lacks finish and taste. Holland is not in any sense of the word a manufacturing country. It is a maritime people that we encounter the rivalry of the Dutch, who make excellent sailors and fishermen, and are content with lower wages than would satisfy English seamen. But there is one industry, that of diamond-cutting, peculiar to Holland. It is carried on at Amsterdam, and is chiefly in the hands of Jews, who earn from £6 to £7 per week. With the exception of this class of workers, the general condition of the Dutch artisans is in every respect inferior to that of their English brethren.

## EXPENDITURES OF WORKMEN'S FAMILIES.

*Estimate of the weekly expenses of a blacksmith, with his family of a wife and one child.*

[From British consular reports.]

Articles.	U. S. gold.	Articles.	U. S. gold.
Rye-bread .....	\$0 40	Vinegar, pepper .....	\$0 04
Wheaten bread .....	10	Oil .....	8
Butter .....	20	Turf and wood .....	14
Milk .....	10	Coke or coal .....	14
Sugar .....	12	Soap .....	8
Coffee .....	12	Starch .....	4
Tea .....	10	Washing and mangling .....	4
Flour .....	10	Thread .....	10
Potatoes .....	40	Water .....	4
Greens .....	20	House-rent .....	40
Meal .....	10	Sick-fund .....	10
Beef .....	.....	Burial-fund .....	3
Mutton .....	.....	Clothes .....	40
Pork .....	.....	Spirits or beer .....	.....
Bacon .....	.....	Tobacco .....	6
Lard .....	24		
Salt .....	6	Total .....	3 81.

The following is an estimate of expenses made by a mason, with a wife and two children. He must be well off, for he indulges in butter and much bacon, and spends nearly half as much again as the smith :

Articles.	U. S. gold.	Articles.	U. S. gold.
House-rent .....	\$0 48	Salt .....	\$0 06
Potatoes .....	50	Vegetables .....	16
Firing .....	30	White bread .....	16
Rye-bread .....	30	Tobacco .....	6
Coffee .....	22	Doctor's fund .....	10
Oil .....	16	Sick and burying fund .....	8
Bacon .....	84	Unforeseen expenses .....	12
Butter .....	52	Schooling .....	10
Suet or lard .....	18	Clothing .....	20
Milk .....	11		
Soap .....	8	Total .....	5 03

Next, we have a list of what is considered a legitimate expenditure by a bricklayer, with a wife and four children. The family is larger than that of the mason, but the house would seem to be inferior and the weekly expenses are much smaller.

Articles.	U. S. gold.	Articles.	U. S. gold.
Rye-bread .....	\$0 40	Salt and pepper .....	\$0 06
Wheaten bread .....	4	Oil .....	16
Butter .....	20	Turf and wood .....	12
Milk .....	8	Coke or coal .....	12
Cheese .....	2	Soap .....	8
Sugar .....	4	Starch and washing .....	5½
Coffee .....	16	Thread .....	6
Tea .....	2	Water .....	5½
Treacle .....	2	House-rent .....	40
Flour .....	8	Burial-fund .....	5
Potatoes .....	40	Clothing .....	40
Vegetables .....	8	Spirits or beer .....	6
Meal .....	14	Tobacco .....	6
Pork .....	18	Miscellaneous .....	6
Bacon .....	14		
Lard .....	16	Total .....	3 90

Lastly, we have the modest estimate of a bricklayer's laborer, who, blessed with a wife and four young children, reckons his expenditure by the day, subscribes, like the others, to the doctor and the undertaker, and finishes by spending considerably more than he is supposed to earn.

Articles.	U. S. gold.	Articles.	U. S. gold.
Bread .....	\$0 08	Milk .....	\$0 1½
Rice or grits .....	5½		
Lard .....	4	Total per day .....	43
Fuel .....	5		
Butter .....	3	Total per week .....	3 01
Coffee .....	2½	House-rent .....	40
Oil .....	2	Sick and burial fund .....	8
Salt .....	1½		
Potatoes .....	10	Total weekly expenses .....	3 49

There are two points specially to be observed in these estimates. The one is the inferior style of living, which such estimates denote. As a rule, no meat but bacon is ever tasted, and but little of that. With one exception, it is not admitted by any of these men that they should lay out any portion of their wages on spirits or beer, or drink anything stronger than tea and coffee. I imagine that in practice they are not all of them thorough temperance men; still, it is remarkable that they do not reckon even beer as a legitimate item of expenditure.

The other point to be remarked is that, notwithstanding the narrow limits within which the household expenses are kept, they in every case considerably exceed the nominal wages of the head of the family. This point was noticed by the committee, who, after examining and comparing many more of these estimates than I have given above, came to the conclusion that the average bare necessities of an ordinary workman, with an average family, amounted to 9 florins (15s.) a week, while his average wages did not exceed 6 florins 60 centimes (11s.) if he was a skilled, and 4 florins 80 centimes (8s.) if he was a perfectly unskilled laborer; that there thus remained a deficit of 2 florins 40 centimes (4s.) in the one case, and 4 florins 2 centimes (7s.) in the other, which had to be provided for by the man working out of hours, or by the help of the wife or children.

#### CONDITION OF THE LABORING-CLASSES IN HOLLAND.

[From British consular reports.]

There can be little doubt that if the laboring-classes in Holland are prosperous and happy, they owe it to their own patient industry, their provident habits, and their natural contented disposition. Living in a land which owes its very existence to the ingenuity and labor of man, at any moment liable to be called out to work again for their lives and homesteads, they owe little to nature, much to themselves. What they acquire with pain they guard with care. The Dutch laborer, whether in field or town, reflects on the value of his earnings; the energies which a warmer blood and a more

impetuous temperament would expend in political excitement, he consecrates to the improvement of his own individual lot; the question of the hour, the news of the day, possess little interest for him; he prefers his Bible to his newspaper, and his family fireside to the public, the reading-room, or the political meeting. Jealous to a degree over the liberty he already possesses, he does not sigh for more, and prefers enjoying in peace the advantages already secured to him, to agitating for others which his fathers did without. The Dutch artisan can live comfortably and contentedly on what would ill-suffice to satisfy the wants of an English laborer. He gets lower wages, he lives in a country where protection is still professed and duties are still high, where the necessities of life are about as dear as in England, and the luxuries dearer, and yet his home is happier and his family healthier than many which could be found elsewhere. Spending less on himself he has more left for his children, and what he saves in beer he spends in bread. The usual wages of a skilled artisan, such as a carpenter, joiner, plumber, or smith, may be reckoned, in the larger towns of Holland, at about \$3.84 a week; his wife, perhaps, adds 72 or 96 cents by taking in washing, and the man himself, by working out of hours, on odd jobs, often adds another shilling or two. I imagine a steady family would thus find the united earnings not fall short of \$5.28 a week. Men whose trades or occupations require less skill are worse paid, unless, indeed, the absence of skill is compensated for by the additional severity of the labor. The firemen or stokers in the gas-works at the Hague receive 17s. 6d. a week; but for this they have to work in relays of twelve hours at a time, day or night, as the case may be, and seven days in the week, with an additional six hours every Saturday to secure the weekly rotation of day and night work. In the smaller towns in the interior of the country, where living is cheaper, house and ground rent low, and skilled labor less in demand, wages are much lower; there, an artisan who might earn \$3.60 or \$3.84 a week in the capital, has to content himself with \$2.40. These are the wages often paid to factory hands. A favorite mode of remuneration for labor is that of paying by piece-work. This plan is adopted even on the premises of the employer. Thus a master cabinetmaker will furnish all the materials for making a table; the table will be made in his own workshop, under his eye; but whether his workman is industrious or idle will make no difference to him, for he will pay him the same sum on its completion. Another very general mode of payment is by the hour instead of by the week. In this case the artisan naturally earns more in the summer, when the days are long, than he can do in the winter. The pay varies according to the nature of the labor, skilled or otherwise. The rates of from 4 to 8 cents per hour embrace the principal variations. Each skilled workman is required to find his own tools, with the exception of those of an immovable nature, such as lathes, presses, and machinery of all kinds. The hours of labor in the summer are generally twelve, including intervals for two or three meals. These consist of breakfast, at about 8; dinner, about mid-day; and occasionally tea toward evening. Half an hour is considered enough for the first and last, but dinner is a more important matter and occupies, with its subsequent repose and pipe, an hour or an hour and a half.

## LABOR IN RUSSIA.

The last of the transatlantic countries to which attention will be directed in connection with the subject of labor, is that vast and interesting section of the Russian Empire which forms the western portion of her territory. Whether considered in regard to its population,\* which falls but little short of the combined population of any two of the most populous countries of Europe, or the vast extent of its territory, which extends through thirty degrees of latitude, or great diversity of its products, which comprise the rich furs of the extreme north, the fruits of semi-tropical climates, and all the varied products of the temperate zone, it stands without a peer among the nations of the old world. In its vast areas of fertile soil, its great forests of valuable timber, and the great variety and abundance of its mineral products, it possesses the germs of a vast development. Although largely devoted to stock-raising, producing a breed of horses which is, perhaps, not excelled for strength and hardihood, it is also extensively devoted to agriculture, although only about three hundred million acres are under cultivation. Grain and hemp are exported in vast quantities, the former competing sharply with the United States in the corn markets of England. The Russian manufactories are, however, of comparatively recent origin, commencing in the reign of Peter the Great, by whom, and by his enterprising successors, the Empress Catherine the Great, the Emperors Alexander and Nicholas, and the present enlightened sovereign, Alexander II, they have been encouraged. Except in sheet-iron, in the quality of which product Russia stands unrivaled, her exports of manufactured products have not been extensive.

## EXPORTS FROM RUSSIA TO THE UNITED STATES.

The following statement shows the extent and values of the products of Russia which find a market in the United States. It will be observed that our imports of raw products from that country consist, chiefly, of wool, flax, and hemp, while sheet-iron forms the only manufactured article of considerable value.

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*\* Population of the principal European countries.*

Russia in Europe, with Finland.....	71, 174, 198
Germany.....	41, 080, 846
France, without Algiers.....	36, 102, 921
United Kingdom.....	31, 483, 700



*Statement of imports into the United States from Russia during the year ended June 30, 1874.*

Year ended June 30, 1874.	Imports direct from Russia.		Imports indirect from Russia.	
	Quantities.	Values.	Quantities.	Values.
<b>FREE OF DUTY.</b>				
Chemicals .....				\$10,335
Hair of all kinds, unmanufactured .....	pounds 80,280	\$12,511		
Paper materials .....	do 318,013	11,011		
All other articles .....		41,903		3,931
Total free of duty .....		65,425		14,266
<b>DUTABLE.</b>				
Bristles .....	pounds		214,098	\$254,180
Cordage, rope, and twine .....	do \$917,229	\$99,037	27,027	3,391
Cotton-manufactures .....		638		
Fancy goods .....		325		
Flax, raw .....	tons 489	119,959	111	33,756
manufactures of .....		129,584		7,143
Hemp, raw .....	tons 297	\$1,655		31
manufactures of .....		161		
Iron, bar-iron .....	pounds		242,087	7,220
sheet-iron .....	do 2,608,682	236,552	2,244,088	210,711
Jute, manufactures of .....		4,583		122
Leather of all kinds .....	pounds 3,638	2,420	42,378	32,566
manufactures of .....		1,025		1,283
Seeds, flaxseed or linseed .....	bushels 56	107		
Tobacco, cigars .....	pounds 150	162	86	199
Wine, in bottles .....	dozen 40	389	125	782
Wool, raw .....	pounds 3,118,930	545,088	847,465	137,718
All other articles .....		60		536
Total dutiable .....		1,191,745		691,678
Total free of duty .....		65,425		14,266
Total imports .....		1,257,170		705,944

The indirect imports came through the ports of—

France .....	\$393
Germany .....	348,259
England .....	354,092
Total .....	705,944

#### MINERAL PRODUCTS AND RESOURCES.

The future capabilities of manufacturing industry in Russia may be estimated in part by the abundance of raw material, especially of minerals. From a work prepared for the Vienna Exhibition by Mr. Skalijskiy, entitled "Tableaux de l'Industrie des Mines de Russie en 1871," the following information in regard to Russian mining industry is extracted:

In 1871 the number of mines owned by Russia and producing gold was 979; platinum, 6; silver-lead, 21; copper, 76; iron, 1,174; zinc, 6; cobalt, 1; tin, 1; coal, 320; pyrites, 1; chrome, 6; rock-salt, 4; besides 697 naphtha pits. Their yield was from 17,000,000 tons of gold-sand, 86,400 pounds of gold, from 16,800 tons of platinum-sand, 4,504 pounds of platinum, 35,120 tons of silver-lead ore, 100,365 tons of copper-ore, 820,000 tons of iron-ore, 42,400 tons of zinc-ore, 10½ tons cobalt-ore, 8,000 tons of pyrites, 817,000 tons of coal (black coal and brown coal,) 22,000 tons of naphtha, 7,000 tons of chrome iron-ore, and 455,000 tons of rock-salt. The smelting-works of Russia produced from these raw ores, silver, 29,000 pounds; lead, 1,740 tons; copper, 4,200 tons; tin, 8 tons; spelter, 2,700 tons; pig-iron, 354,000 tons; iron castings, 30,000 tons; wrought-iron, 241,500 tons; steel, 7,000 tons; copper sheets, 350 tons; and zinc sheets, 500 tons, and material for 11,255,000 roubles. The works gave employment to 266,300 men.

## THE TEXTILE INDUSTRIES OF RUSSIA.

From a work similar in character to the one above quoted from, but relating to another branch of industry, as indicated in its title,\* the following facts are condensed. The quantities and values have been reduced to the weights, measures, and currency of the United States:

## THE WOOLEN INDUSTRY.

The fabrication of tissues of wool was founded in Russia by Peter the Great. The principal branch of this industry, the manufacture of cloth, was not originally established for supplying the general consumption, but to furnish uniforms for the Russian soldiers, and the ulterior development of this industry is intimately connected with supplying cloth for the army.

The first manufactory of cloth for the use of the troops was founded at Moscow by Peter the Great, in 1698, on his return from his foreign travels. Later, in 1812, it was provided by ordinance that Russian cloths should be generally used by the army; and with this object in view there were created thirty factories, which received various privileges. The sovereign gave them lands, granted to them the right of holding serfs as workmen, and, moreover, made advances to cover the expenses of starting the establishments.

In 1822 the quantity of cloths furnished by the Russian manufacturers for the army exceeded, for the first time, the demand, reaching 4,000,000 archines,† (3,111,111 yards.)

The progress of the cloth factories from 1800 to 1830 is as follows: In 1804 there were 155 cloth factories, in 1814, 235, and in 1820, 304, employing 53,000 workmen, and making more than 4,120,000 yards per year; finally, in 1830, the number of factories had risen to 390, employing 67,000 workmen and making 5,988,888 yards per year. At the present time the woollen industry fully supplies the necessities of the army. In 1856, at the epoch of the Crimean war, it was able to supply the army with 10,000,000 yards of cloth.

The manufacture of articles of fashion from combed-wool did not commence in Russia until after 1830, and then foreign yarns were employed. Spinning combed-wool was not attempted until some time later.

The gradual progress of this industry is shown by the importations of yarn. Before 1830 the importations were absolutely nothing:

	Pounds.
From 1830 to 1832.....	‡ 113,400
From 1839 to 1844.....	900,000
From 1851 to 1853.....	2,016,000
From 1859 to 1861.....	3,240,000
From 1869 to 1871.....	7,560,000

A notable increase is observed in 1869-1871; and in order to represent fully the production of woollen fabrics for this period, these figures should be increased about one-eighth for the combing-wool spun in the four establishments now in operation in Moscow. It may be added that the great care devoted to the raising of sheep, and to the shearing and washing of wool in the interior of Russia and the Baltic Provinces, by furnishing excellent raw material, has contributed much to the progress of manufactures in spinning and weaving wool. The progress within twenty years has been such that many woollen fabrics now rival the best that come from abroad.

The following table exhibits the progress of the wool-manufactures for three-year periods from 1862 to 1871:

*Woollen industry of Russia.*

Years.	Woollen yarns.			Cloths.		
	Number of factories.	Number of workmen.	Value of products.	Number of factories.	Number of workmen.	Value of products.
1862-'64.....	29	2,190	*\$1,152,600	390	74,620	\$30,476,050
1865-'67.....	27	2,630	1,687,050	418	73,390	25,091,475
1868-'70.....	29	3,020	1,650,150	483	73,640	28,098,675
1871.....	40	3,700	2,325,675	510	75,900	32,925,000

\* "Notice Statistique sur les Industries Textiles en Russie," by M. A. Nébolzine, prepared under the direction of the Imperial Russian Commissioner of the Universal Exposition of Vienna in 1873.

† An archine or arsheen is 28 inches

‡ The pood computed at 36 pounds.

*Woolen industries of Russia—Continued.*

Years.	Fabrics of combed wool.			Total.		
	Number of factories.	Number of workmen.	Value of products.	Number of factories.	Number of workmen.	Value of products.
1862-'64 .....	120	14, 580	\$5, 863, 650	533	91, 390	\$27, 492, 289
1865-'67 .....	135	17, 400	8, 440, 950	560	83, 550	25, 225, 475
1868-'70 .....	160	19, 400	9, 417, 675	672	86, 060	39, 166, 349
1871 .....	248	30, 600	14, 700, 000	798	110, 300	49, 950, 675

\* In this and subsequent tables the Russian rouble is computed at 75 cents, which is about its equivalent in the currency of the United States when the premium on gold is 15 per cent.

It will be seen by the foregoing table that a steady progress has been made in the woolen industry, especially in the weaving branch, but that while the number of establishments and the value of products have increased, the number of workmen has diminished. This decrease in the number of workmen since 1861 must be attributed to the enfranchisement of the serfs. Many establishments which produced the coarse cloths for clothing the troops were carried on by the landed proprietors upon their own estates, and the labor employed by them was almost exclusively that of the serfs, who paid rent for the lands in this way. The influence of emancipation upon the cloth industry is shown by the following figures:

In 1860 there were 430 cloth factories, employing about 95,000 workmen and producing annually about \$19,500,000 of merchandise. The number of factories and workmen commenced to diminish in 1862, and in 1863 reached the minimum number of 365 factories and 72,000 workmen; but the total value of products remained the same. Since that time the cloth industry has taken a new direction. The necessity of economizing labor has led the manufacturers to adopt improved machines which do the work with fewer workmen.

The following table shows the statistics of the woolen industry of Russia, of Poland, and of Finland, separately and in the aggregate:

Countries.	Number of factories.	Number of workmen.	Value of production in dollars.
In the empire .....	798	110, 300	\$49, 950, 600
Kingdom of Poland .....	531	10, 790	7, 762, 200
Grand Duchy of Finland .....	10	150	52, 700
Total .....	1, 339	121, 070	57, 765, 500

The products of the several provinces of the empire, which exceed a million dollars in value, are the following:

Moscow .....	\$30, 874, 500	Tschernigoff .....	\$1, 936, 750
Plotrkoff .....	6, 138, 000	St. Petersburg .....	1, 942, 500
Grodno .....	3, 886, 500	Livonia .....	1, 866, 750
Simbirsk .....	2, 503, 500	Kalisz .....	1, 368, 000

The principal raw material used is native wool. Foreign wools are imported only in small quantities, (100,000 pounds in 1871,) and are used principally in Poland and the Baltic provinces.

The wools used are, first, the merino wools, of which Russia produces about 1,800,000 pounds annually, but a part is exported; second, the Russian wool of the borders of the Don and the countries beyond the Volga; third, the Tsigais wool, the wool of the hordes, (Ural, Emba, and Adaew;) fourth, camel's hair, of which 700,000 pounds are collected annually. A part of the Russian wool is exported.

## THE CLOTH INDUSTRY.

In 1871 there were in Russia 510 cloth-factories, employing 76,000 workmen, and producing an annual value of \$33,000,000; in the kingdom of Poland, 236 cloth-factories,

with 3,900 workmen and a product of \$2,812,500; and in the Grand Duchy of Finland, 5 factories, employing 30 workmen, and producing annually \$5,700; a total of 751 establishments, with 79,000 workmen and an annual production of the value of \$35,250,000.

The products may be divided into three classes: the coarse cloth for clothing the troops; the cloth for private consumption at home, and the cloth for the China trade, which is delivered at the market of Kiahkta.

The exports to China of cloths and other manufactures, by way of Kiahkta, which in 1856-'61 amounted to an annual value of \$1,620,870, fell off in the years 1862-'65 to \$1,426,860. In the years 1866-'70 it rose again to \$1,571,336, and was \$1,456,232 in 1871.

The adoption of *baschylk* for use in the army has given a value to the camel's hair, formerly useless. Added to this is another kind of cloth, called "camel's cloth," but which is made from the white wool of Kirghiz sheep, dyed yellow. This cloth is used to a considerable extent by the poor inhabitants of the Lower Volga, as well as by the nomadic peoples. Its price varies from 88 cents to \$1.06 per yard. The cloth for general use is made by two classes of factories: one producing a cloth not exceeding in price \$2.40 to \$2.90 per yard, the other a cloth worth \$3.85 and over per yard; the latter establishments being principally in Livonia and Poland, but to some extent in Moscow and St. Petersburg.

As the demand for faced cloth has materially diminished of late, while it has increased for other tissues, such as moleekins, tricots, cassimeres, diagonals, satins of wool, &c., many manufacturers who formerly made faced goods exclusively are now manufacturing the modern tissues with success.

#### WOOL-SPINNING FACTORIES.

In 1871 there were 40 spinning-mills in the empire, employing more than 3,700 workmen, and producing annually about \$3,325,000. Adding those of Poland, there are in all 65 spinning-mills, with 4,790 workmen, and a production of \$3,372,675. These are the establishments where nothing but spinning is done. The cloth-factories have their own spinning departments. In four of the mills where combing-wool is worked there are 38 combing-machines, 26,100 spindles, and an annual production of 27,300 pounds of yarn, valued at \$1,350,000.

#### TISSUES OF COMBING-WOOL AND HALF-WOOL.

In 1871 there were 524 factories of this class, 36,550 workmen, and an annual product valued at \$18,657,000. The manufacture of fancy tissues of wool and half-wool (worsted with cotton warps) is principally carried on in the government of Moscow, where the number of establishments reaches 228, with 14,650 looms, 29,000 workmen, and an annual production valued at \$13,312,000.

Shawls, scarfs, &c., are manufactured quite extensively. In 1872 the government of Moscow sent to market more than three million woolen shawls and scarfs of different kinds.

#### CARPETS AND FELTS.

In 1871 there were 5 factories, employing 300 workmen, with an annual product valued at \$244,500. The greater part of the carpets are made of printed warps, (tapestry.) The printing is sometimes done at the factories, but oftener the printed warps are ordered from abroad. A few carpets are made on the Jacquard looms. The Persian and Turkish carpets made in Caucasia are noted for their firm texture and excellence. They are made by hand, and are very expensive.

The manufacture of felt goods is not important. In 1871 there were 39 factories, with 275 workmen, producing annually a value of \$590,000. The goods are principally carpets and gloves of felted wool, and are remarkable for their good quality and cheapness.

There is another branch of the woolen industry carried on quite extensively—that of the peasants, some of whose domestic cloths have a great reputation. In places where this industry is carried on extensively, the wealthy peasants furnish the workmen the raw wools or yarns, which are returned to them in cloth. The spinning of wool for knitting, and the knitting of stockings, constitute still another branch of the domestic industry of the peasants. The data are wanting for an estimate of this household industry.

The distribution of these products is principally made at the fairs in the interior of Russia. The quantity of foreign goods sold at these fairs is very small compared to the home products. In the three years 1864-'66 there were delivered at the fair of Nijni-Novgorod about \$412,000 of foreign woolsens, and \$6,975,000 of Russian products. The quantity of foreign manufactures sold at this fair has gradually diminished since

that time. It was valued at \$3,337,500 in 1867, and in 1872 it was only \$1,177,500, while the stock of Russian woollens in the same year was as high as \$15,000,000.

Notwithstanding the diminution of foreign goods at this fair and the increase of home products the importation of woollens is quite large, and has increased of late years. In 1867 the imports of woolen goods amounted to \$4,806,794, and in 1871 to \$7,950,668. The exports of woolen goods were in 1867 about \$2,050,000, and in 1871 about \$2,054,000.

#### THE COTTON INDUSTRY.

The cotton industry gives a product of 162,000,000 roubles.\*

In the last years of the eighteenth century, Russia contained, according to official documents, only 90 establishments for weaving cotton, (spinning not having then been introduced.) At the commencement of the nineteenth century weaving began to rapidly develop itself, and in 1820 there were 440 establishments, employing 36,000 workmen, and supplying commerce with 35,000,000 archines of cottonades.†

The progress of the industry of weaving cotton was still more rapid after the prohibitive tariff of 1822, which absolutely interdicted the entry of printed cottons, and placed a very high duty upon the importation of other cotton tissues as well as upon cotton yarns. Under the very marked influence of this tariff the national fabrication was more than doubled in a few years. In 1830 we possessed 538 establishments for weaving, producing, with 76,000 workmen, 83,000,000 archines of cottonades. But it is, above all, by contributing to power-spinning that the tariff of 1822 placed upon a solid basis our cotton industry. Machine-spinning had been carried on at the imperial manufactory of Alexandrovsky since 1805; but this was only a commencement, and that establishment belonging to the state, was placed in exceptional conditions, which could not be made general. It was only at the epoch which followed the publication of the tariff of 1822 that the introduction of power-spinning was properly made in Russia.

The two first private spinning establishments were founded, in 1824, at St. Petersburg and Moscow, and in ten years after, that is 1835, there were 25 establishments.

The progress of this industry became particularly marked from the period of the year 1842, when the exportation of spinning-machines was authorized in England. We must also attribute this progress, in a certain measure, to the increase of the duty upon cotton yarns from \$3.60 to \$4.68 per pood,‡ effected in 1841, in consequence of the crisis of that year.

In 1849 the number of spinning establishments rose to 45, and the value of their products represented no less than \$8,280,000.

An important change took place, in 1850, in the commercial policy of Russia, which passed from the prohibitive *régime* to the protective system. The tariff of 1850 reduced the duties on cotton yarns from \$4.32, the old rate, to \$3.96 per pood. The tariff of 1857 lowered the duty to \$2.52. The duty was also lowered upon other articles of cotton. The national industry had then become so solidly established that, far from prejudicing it, the reductions of duty gave it a new impulse, and stimulated it to develop and perfect its processes. In the revenue-reform of 1868, the duties established in 1857 underwent but slight modifications, and the protection accorded to the Russian fabrication of cotton remains nearly the same.

Table showing the condition of the cotton industry in the Russian empire in 1871.

Industries.	Number of establishments.	Number of workmen.	Value of produce in roubles.
Spinning .....	51	44,300	55,070,000
Weaving .....	738	78,700	48,220,000
Dyeing and printing .....	511	34,700	48,200,000
Total in Russia .....	1,300	157,700	151,490,000
Kingdom of Poland .....	1,086	13,410	8,613,100
Grand Duchy of Finland .....	5	4,000	2,027,000
Total .....	2,391	175,110	162,296,100

\* A rouble of 100 kopecks is equal to about 66 cents gold, or 75 cents in paper currency of the United States.

† One hundred archines are equal to 77.77 yards.

‡ A pood is equal to 36.4 pounds.

The cotton industry of Russia is fitted to the necessities and tastes of the country. In the great market of Nijni-Novgorod the presence of the Russian merchandise reduces very considerably the demand for foreign cottons to supply the markets of the interior.

In the triennial period of 1864-'66 there were sold at the fair of Nijni-Novgorod \$1,256,400 worth of foreign cottonades, while the Russian fabrics figured at a value of \$11,016,000. In 1872, the value of all the foreign products of cotton, wool, flax, and silk sold at this fair was \$1,130,400, while the Russian cottonades sold represented a value of \$23,328,000.

The cotton industry, although introduced artificially into Russia, has no less rapidly acquired an economical importance, so great as to now occupy the first rank among the industries of prime necessity.

#### THE SILK INDUSTRY.

The manufacture of silk was commenced in the last century; but it is only since 1830, under the influence of a protective tariff, that this fabrication has become developed, or acquired any considerable importance. In 1872 there were 460 silk-factories, 15,800 workmen, and an annual production of the value of \$7,416,000, including the production of Transcaucasia, which is more of a domestic than manufacturing character. The importation of foreign silks, in 1871, was of a value of \$4,531,633.20; so that the value of the importations was nearly equal to one-half of the national fabrication. The latter, in the character of its products, has reached a high excellence. The manufacture of brocatelles, used in the churches, has attained a very great perfection.

An industry which has been developed among us on a very vast scale is that of the manufacture of light silks, and, above all, tissues of half-silk, plain and figured. In perfection of finish, taste, and price, our fancy stuffs of silk can bear comparison with foreign fabrics.

The following statement, obtained from another source, shows the mineral productions of Russia in the year 1874.

The state founderies smelted 1,225,000 Russian poods\* of bronze, 557,000 of iron, and 1,000 of steel; 89,000 poods weight of articles in bronze were cast, and 503,000 poods weight of ammunition; 9,000 poods weight of steel cannon, and 15,000 weight of iron cannon, 15,000 poods of lead, and 6,600 of zinc were smelted; 7,800 poods weight of iron articles; 10,000 poods weight of sheet-iron, and 7,500 roubles' worth of iron for use in ship-building were also made, besides 46,700 side-arms; 20,000 blades, and 5,725 gun-barrels. The amount of metal passing through private factories can only be approximately computed, as the year is reckoned from May 1 to April 30. The following return, however, is supposed to be tolerably correct. The productions of the smelting establishments of the Ural are estimated at 13,200,000 poods of bronze, 1,017,000 of iron, 69,000 of steel, and 100,000 of copper. Those around Moscow are supposed to have produced 3,360,000 poods of bronze, and 1,830,000 of iron. South Russian produce is estimated at 430,000 poods of bronze, and 440,000 of iron. That of the Polish provinces at 1,370,000 poods of bronze, 800,000 of iron, and 120,000 of zinc. Lastly, 44,000 poods of copper is computed as the return from the Caucasus. Gold, to the amount of 1,806 poods, has been extracted during 1874, without reckoning the districts of Altaï and Nerchinsk, which yield an annual average of 165 poods. The production of coal has increased; the total amount, including anthracite, raised in 1874 being 83,575,000 poods. The extraction of mineral oils in the Caucasus shows a great increase, and oil-wells have lately been discovered in Poland.

#### THE INDUSTRIAL CLASSES OF RUSSIA.

When the author visited Russia in 1872, as a delegate from the United States to the International Statistical Congress, the eighth session of which was held in St. Petersburg in August of that year, his time was so fully engrossed in the work of the congress that he was unable to make a personal investigation in regard to the cost and condition of the mechanical and factory labor of that country. His stay at Moscow, the center of the manufacturing industry of Russia, as well as at Nijni-Novgorod, where he attended the great fair, and subsequently at Warsaw, was so brief that but limited information was obtained in regard to the industrial classes of that great empire. As to the peasantry—the farm-laborers who were recently emancipated from serfdom—his observations were more extensive than his inquiries; for, traveling as he did about 4,000 versts (over 2,600 miles) through the center of that country, he was able to observe the habits of the people,

\* Pood = 36.4 pounds avoirdupois.

to view their dwellings, and thus inform himself of their condition, although unable to converse with them.

In regard to factory and mechanical labor, however, he has gathered from other sources, and presents in the following pages, information of much value.

The following table, showing the nature and extent of the chief industries of Russia, was prepared by Mr. Michell, then British consul at St. Petersburg:

Nature of industry.	Number of works and manufactories.	Number of workmen.	Value of production in rubles.
Cotton.....	606	69,347	71,725,439
Hemp and flax.....	225	29,259	11,405,696
Woolen.....	614	92,389	22,525,518
Silk.....	292	7,933	4,438,461
Dye-works.....	204	8,919	4,126,003
Paper.....	170	13,903	5,275,816
Leather.....	2,471	12,945	18,164,897
Tallow.....	1,595	10,586	22,523,935
Wax.....	216	1,063	2,732,084
Pottery.....	289	4,178	1,321,673
Glass.....	210	10,744	4,402,774
Metals.....	713	47,379	28,608,194
Chemicals.....	377	6,136	23,122,617
	7,962	302,314	*220,654,672

\* Equal to about \$165,500,000 in United States currency.

Spirits distilled, about 73,000,000 gallons; beer and mead brewed, about 21,000,000 gallons; beet-root sugar produced, 3,300,000 poods; tobacco manufactured, 594,000 poods; iron raised, 15,781,000 poods.

#### FACTORY LABOR IN 1841.

The following statement shows the wages, per month, of work-people in a cotton-mill in St. Petersburg, in the year 1841.

Occupations.	Wages.	Cost of board, lodging, and light.	Cost of clothes.	Surplus money remaining to each.
Men in the blowing or mixing rooms.....	\$8 40	\$3 60	\$1 92	\$2 88
Boys in the blowing-room.....	6 00	3 60	1 80	1 60
Men at carding-engines.....	8 40	3 60	1 92	2 88
Boys at the back of cards.....	6 00	3 60	1 80	1 60
Boys at the front of cards.....	4 80	3 60	96	96
Girls at the calenders.....	3 60	3 60	96	96
Women or girls at drawing-frames.....	6 00	3 60	1 20	1 20
Women or girls at back of frames.....	4 80	3 60	1 20	72
Girls at back of tube-machine.....	4 80	2 64	1 20	36
Girls at front of tube-machine.....	4 80	3 60	1 20	72
Spinners.....	22 24	4 32	1 52	16 40
First or large piecer.....	9 60	3 36	1 20	5 04
Second or back piecer.....	7 20	2 88	1 20	3 12
Largest boy at back of the mules.....	4 80	2 88	1 20	72
Smallest boy at back of the mules.....	3 60	2 88	72	.....
Reelers.....	7 20	2 88	1 20	3 12
Piler, first class.....	14 40	4 32	1 92	8 16
Smiths, machinists, &c.....	16 80	4 32	1 92	10 56
Watchman.....	7 20	3 60	1 44	2 16

## RATES OF WAGES IN 1869.

[From the British consular reports.]

## ST. PETERSBURG, 1870.

Wages vary considerably, and are dependent on a variety of causes, such as the locality, season of the year, &c.; the lowest wages being paid in districts where hand-loom-weavers abound. Good mill-hands make from \$7.50 to \$15 per month, and are often paid by piece-work.

Fitters, ordinary mechanics, joiners, blacksmiths, &c., will earn from 75 cents to \$1.50 a day. Skilled mechanics, engine-drivers, engineers on river steamers, &c., earn very high wages—from \$1.50 to \$2.50 per day, and even more.

English foremen receive \$20 to \$30 a week, with lodging, fuel, and light free. Apprentices generally receive from \$2.50 to \$3 a month for the first year, increasing each succeeding one by a rouble a month.

In cotton-mills, piecers, iron-tenters, and reelers generally get paid according to the amount of work done; the others are paid by the day.

## WAGES IN MOSCOW.

The following tables give the rates of wages per month at Moscow, the industrial center of Russia, in the year 1869, and also the prices of the chief articles of consumption:

*Wages in cotton-mills.*

	Wages per month.
Mixing-room—cotton-pickers, women .....	\$3 52
Scutching—overlookers, men .....	8 36
Tenters, men .....	4 84
Card-room—overlookers, men .....	11 28
Strippers, men .....	6 08
Grinders, men .....	6 14
Drawing-tenters, women .....	3 60
Speed-tenters, women .....	4 54½
Speed-piecers, girls .....	2 08
Overlookers, men .....	12 20
Male spinners, men .....	9 16
Male spinners, first piecers, boys .....	5 32
Male spinners, second piecers, boys .....	4 16
Male spinners, scavengers, boys .....	2 88
Throstle-piecers, girls .....	2 30
Reelers, women .....	4 54½
Overlookers, men .....	11 60
Winders, women .....	3 94
Warpers, women .....	7 46
Sizers, men .....	10 64
Head-knitters, girls .....	3 84
Weavers, men and women .....	7 88
Enginemen .....	11 76
Stokers, men .....	6 88
Oilers, men .....	6 44
Mechanics .....	11 60
Blacksmiths .....	13 00
Boiler-makers .....	19 36
Molders .....	12 88
Joiners .....	10 96
Pattern-makers .....	13 52
Packers .....	9 32
Storemen .....	5 80
Gasmen .....	6 44
Watchmen .....	3 87
Day-laborers .....	5 03
Carters .....	6 44
Clerks, in 1869, from .....	\$6 44 to 19 36

*Flax-mills.*

Rufflers, men .....	9 68
Sorters, men and boys .....	11 60
Machine-hacklers, men and boys .....	3 84



	Wages per month
Spreaders, women .....	\$4 16
Carder-spreaders, women .....	3 84
Drawers, women .....	3 52
Rovers, women .....	3 84
Spinners, women and children .....	3 84
Doffers .....	2 56
Bobbin-carriers, boys .....	4 48
Twisters, boys and girls .....	4 48
Band-tiers, boys .....	4 48
Reelers, women .....	1 28
Dryers, men .....	4 84
Bleachers, men .....	5 16
Winders, women and girls .....	3 52
Piecers, girls .....	2 56
Warpers, women .....	6 44
Dressers, men .....	9 68
Weavers, boys and women .....	4 48
Cloth-pickers, boys .....	4 22
Calenderers, men .....	8 36
Reel-makers, boys .....	6 44
Head-knitters, boys and girls .....	2 02
Packers, men .....	6 44
Enginemen .....	9 68
Stokers, men .....	7 72
Shaft-oilers, men .....	5 16
Mechanics, men .....	5 16
Blacksmiths, men .....	13 84
Model-makers, men .....	15 48
Joiners, men .....	11 60
Brass-founders, men .....	12 88
Gasmen .....	6 44
Watchmen .....	5 16
Day-laborers .....	5 16
Carters .....	6 44
Sweepers, boys and men .....	4 48
Clerks .....	19 36
Overlookers, from .....	\$5 80 to 16 12

*Bleaching, dyeing, and print works.*

Laborers in laboratory and about printing-machines, men .....	6 44
Work-people about agency-room, dye-house, and calenderers, men and women .....	5 80
Overlookers about agency-room, dye-house, and calenders, men .....	9 68
Packers, men .....	9 68
Overlookers, men .....	10 96
Wool-washers, men .....	6 12
Card-cleaners, men .....	6 44
Card-feeders, women .....	3 20
Comb-tenters, women .....	3 84
Drawing-tenters, women .....	3 52
Roving-tenters, women .....	3 20
Twisters, women .....	3 20
Reelers, women .....	5 16

*Woolen manufacture.*

Overlookers, men .....	12 88
Card-cleaners, men .....	5 80
Card-tenters, women .....	3 03
Shearing, women .....	3 03
Weavers, women .....	6 44
Cloth-cleaners, women .....	4 48
Wool-washers, men .....	5 48
Cloth-dryers, men .....	5 48
Cloth-pressers, men .....	5 80
Spinners, boys .....	2 88
Spinners, men .....	10 32

*Glass-works.*

	Wages per month	
Glass-blowers .....	\$8 36 to	\$14 16
Rough-polishers .....	6 44 to	11 60
Cutlers .....	8 36 to	16 12
Designers .....	7 08 to	10 96
Gilders .....		3 36
Assistants to blowers, boys .....		2 72
Mixers of materials at furnace .....		16 12
Hardeners, boys .....		5 16
Storers and packers, men .....		6 44

*Paper-mills.*

Overlookers .....	9 68 to	11 60
Workmen .....	5 16 to	6 44
Workwomen .....	3 20 to	3 84
Average cost of food per month for—		
One man .....		3 04
One woman .....		2 30
One child .....		1 92

## PRICES OF PROVISIONS.

Flour, black, per cwt .....	2 18
white, best, per cwt .....	5 58
white, second, per cwt .....	3 96
white, third, per cwt .....	3 56
Buckwheat, per measure .....	83
Wheat, per measure .....	1 15
Malt, per cwt .....	3 18
Salt, per cwt .....	1 98
Pease, per measure .....	3 56
Oil, (used during fasts,) per cwt .....	12 80
Butter, per pound .....	18
Small fish, per pound .....	11
Beef, first sort, per pound .....	09
second sort, per pound .....	07
Salted beef, per cwt .....	7 98

In the larger towns the price of the best beef and mutton often runs as high as 17½ cents per pound.

The increase in the prices of the chief articles of consumption during the last ten years may be roughly stated to be at the rate of from 30 to 50 per cent., but the rates of wages have increased in an equal and in many cases in a greater proportion. The condition of the Russian artisan has improved very materially during late years, and were it not for the lowering of the duty on the already too-cheap "vodka," (corn brandy,) the working-class in Russia would be, comparatively speaking, well off.

*Prices of provisions in Nicolaieff, Russia, in 1870.*

Beef, veal, mutton, and pork, per pound .....	\$0 06 to	\$0 08
Bread, middling, per 2 pounds .....		06
best, per pound .....		08
Rye, best, per pound .....		03
Butter, fresh, per pound .....		28
Butter, salt, per pound .....		24
Cheese, bad, native, per pound .....		14
Swiss and English, per pound .....		60
Millet, per pound .....		02
Buckwheat, per pound .....		02
Sugar refined, (no other qualities are used,) per pound .....		18
Tea, cheapest, per pound .....		90
Firewood, fir, per cart-load .....		4 84
Firewood, oak, per cart-load .....		6 29
Coals, native, anthracite, per ton .....		14 52
Coals, English bituminous, per ton .....		9 68
Water, per cart .....		60
per pail .....		02
Bong, brackish, per pail .....		01
Cabbages, per 100 .....		2 42
Carrots, per 10 .....		08

Onions, per 50 .....	\$0 06
Parsley, per bunch .....	004
Potatoes, per pound .....	03
Solanum, per 100 .....	60
Tallow dips, per pound .....	12
molds, per pound .....	14
Composition candles, per pound .....	24
Petroleum, per quart .....	24
Flour, best, per pound .....	04
seconds, per pound .....	03
Coffee, per pound .....	\$0 24 to 36
Milk, per quart .....	10
Bacon, lard, ham, per pound .....	14
Fowls, per pair .....	60 to 72
Geese, each .....	60 to 72
Turkeys, each .....	72 to 1 69
Soap, per pound .....	10
Starch, per pound .....	08
Macaroni, per pound .....	06
Rice, per pound .....	06
Eggs, per 100 .....	84
Fish, average, per pound .....	20
Crawfish, per 100 .....	05
Wine, commonest, bad, per bottle .....	12
passable, per bottle .....	28
Vodki or brandy, per bottle .....	36

Manure, dried and caked for fuel, is this year at \$7.26 per 7 cubic feet. Reeds and linseed straw and flax-stems and brushwood, \$1.21 per 30 bundles.

### INDUSTRIAL CLASSES IN RUSSIA.

ST. PETERSBURG, *January 12, 1870.*

It is not easy to state at all accurately the proportion which the number of Russians employed in industrial pursuits, exclusive of the agricultural population, bears to the other classes.

The difficulty arises in great measure from the existence of a very numerous class of nomads; for independently of those employed in the internal navigation, carpenters, bricklayers, stonemasons, painters, joiners, and other artisans are in the habit of flocking into the great towns in the spring, and of returning to their villages in the autumn.

The following is a rough estimate of the numbers employed in various manufactures in Russia:

	Hands.
Cotton—Spinning-mills .....	50,000
Weaving-mills .....	70,000
Hand-loom weavers, reelers, &c. ....	100,000
Calico-printing, dyeing, bleaching, &c. ....	50,000
Total employed in cotton-manufacture .....	270,000
Wool—Spinning-mills .....	5,000
Weaving-mills .....	25,000
Total employed in woolen-manufacture .....	30,000
Flax—Spinning-mills .....	8,000
Weaving-mills .....	12,000
Dressers, &c. ....	30,000
Total employed in flax-manufacture .....	50,000
Hemp—Yarn-spinning .....	4,000
Rope and cordage .....	4,000
Dressers .....	20,000
Total employed in hemp-manufacture .....	28,000
Cloth—Weaving, dressing, &c. ....	70,000
Carpet-manufacture .....	2,000

	Hands.
Silk—Ribbons, &c.....	1,500
Silks, &c.....	7,000
Gauze.....	1,500
Total employed in silk-manufacture.....	10,000
Iron.....	150,000
Leather.....	30,000
Deals, &c.....	20,000
Oils—hemp, linseed, sunflower, &c.....	15,000
Sugar.....	50,000
Total number of hands employed in the foregoing manufactures.....	725,000

To the above must be added those engaged in glove, boot, hat, watch, carriage-making, and other employments, no reliable statistics to arrive even approximately at their numbers being obtainable.

#### CONDITION OF AGRICULTURAL LABORERS.

The agricultural laborers live almost entirely in houses of their own, which are throughout the empire constructed in the following simple fashion: Logs of the red pine are cut into the required lengths—3, 4, or 5 fathoms, according to the proposed size of the house; the lengths are placed one above the other, the ends being dovetailed together, thus forming, as it were, a huge box of logs; the doors and windows are then cut out, and the pieces carefully numbered by notches; the box is now taken to pieces, and the actual building commences; this is done by placing the lowest tier on boulder-stones and wooden posts for foundations, then each succeeding tier is added, moss, or hemp and tow, being used between each layer, to fill up all interstices; the walls thus completed, floors and ceilings of red or white pine boards are added, both ceiling and flooring generally being double, with a layer of earth between; the whole is crossed over with boards, the roofing generally consisting of wooden tiles; in one corner of a room a large brick stove, similar to an English baking-oven, is built, a chimney, either of bricks (put loosely together without mortar) or of wood, is carried through the roof, and the house, or hut, is complete. Here the whole family lives. Generally the house contains but a single room, but sometimes a well-to-do peasant has a house of three or four rooms, and even uses plaster and paper-hangings for the walls of his hut.

#### CONDITION OF FACTORY LABORERS.

The mill-people in large towns or their suburbs, for the most part, live as lodgers, in houses varying in size from the peasant's hut to large buildings of two or three stories, but in no case are comfort and cleanliness taken into consideration. The rooms are generally small, low, badly ventilated, and crowded; the same room is used for sleeping and eating; shelves or benches serve as beds. The occupants are generally only known to each other from working at the same mill; very few, indeed, are members of the same family, and children, even where employed in the same neighborhood as their parents, seldom live with them. Separate sleeping-apartments are almost unknown, save in the case of the superior workmen who rise to be overlookers, foremen, &c.; these men have often neat, tidy lodgings, and live with some regard to appearances. It is a general practice among mill-hands to form themselves into *artels*, a kind of club, consisting, according to the size of the room, of five, ten, eighteen, twenty, or even a greater number of members. Each *artel* will engage a woman as cook, appoint a treasurer to encash monthly the subscriptions due to the general fund for provisions, &c. The food of the workmen generally consists of black bread, fresh and salt fish, soup from cabbage and meat, potatoes, mushrooms, cucumbers, &c. Tea, corn brandy, quass, and beer are the beverages. Beer has gained great favor with the mill-hands, both in St. Petersburg and Moscow; otherwise it is very little drunk by the poorer classes.

As a rule, in the neighborhood of large towns the people live much better, generally at an average rate of about \$5 per month per man; at other places, (except in the central and southern provinces, where the food of the people is generally good,) however, the living is very wretched, the food consisting of little else besides black bread and water, and occasionally only a little tea, the living in this case costing only about from \$1.20 to \$1.44 per month. With the extension of the railway system, the wages and style of living are improving, even in the more remote districts.

Of late years, some mill-owners have adopted the plan of providing lodgings for their work-people, and in many instances have built large houses, constructed on sanitary principles. Here the people are divided into three classes: the married, the unmarried men, and the unmarried women; to each is allotted a separate house or

part of the house. The supervision of the lodgings is intrusted to competent persons, and an extent of cleanliness and comfort is attained which would be quite impossible to arrive at in any other way. The inmates pay for their lodgings according to the size or the number of rooms occupied by them, the amount due for rent being deducted every month from their wages. Under this system a single man will pay from 72 cents to \$1.44 a month; married men from \$1.44 to \$2.16. Attached to these houses there is generally a store, where the people can purchase the necessities of life, of good quality and at reasonable prices; this store is under the control of the mill-owner or manager. \* \* \* Some of the more wealthy mill-owners have already established hospitals in direct connection with their works; the ground and buildings being provided by the proprietor, while the hands generally support the hospitals by a payment of from  $\frac{1}{4}$  to 1 per cent. on their wages. \* \* \*

#### HOURS OF LABOR.

The hands work on an average thirteen hours per day, commencing at 5 a. m. in the summer and at 5.30 a. m. in the winter, and stopping work at 8 p. m. An hour in the middle of the day, generally from 12 to 1, is allowed for dinner, and the operatives usually have a short time allowed for breakfast at 8 a. m., and again, for a luncheon, at 5 p. m. Adults and children keep the same hours, but only very inconsiderable numbers of the latter are employed in mills.

#### EDUCATION IN RUSSIA.

In Russia, in 1872, there were 1,081 preparatory and higher schools, attended by 37,430 pupils, of whom 16,461 were boys and 21,789 girls. There were 126 gymnasias, in which Latin, French, Greek, and science generally, were taught; and 32 progymnasias, attended by 42,751 pupils. Of preparatory and higher schools for girls only, there were 186, attended by 23,404 pupils. The universities, of which there are now eight, have been organized on the German model. They employ 512 professors, and have 6,799 pupils, nearly all the latter being from the middle and poorer classes.

In reference to the condition of the working classes of Russia, the British Almanac says:

In Russia the working classes may be regarded as being in a kind of transition state, in consequence of the recent abolition of serfdom throughout the empire; many workmen who have been serfs enjoying from their owners permission to live and work in the large towns. Again, there seems to be a tendency on the part of the newly-emancipated population to drift toward the large cities and towns, agricultural labor being miserably remunerated in Russia. On the other hand, the Russian mechanic appears disposed to emigrate to the United States, but for the political obstacles in the way of his so doing. In every respect, the social condition of the Russian artisan is inferior to that of his brethren in Western Europe, and years must elapse before he can hope to become on terms of industrial equality with them.

#### BERDIANSK.

The British consul at Berdiansk, under date of March 22, 1872, writes as follows:

The keen demand for grain has brought large tracts of land under cultivation, and a severe strain on the labor market has resulted, which has within the last four years brought up wages to very high rates. The Russian workman has not yet learned the value of time, and he does not appreciate home comforts or wholesome food. Earning from \$5 to \$10 in a week, he will waste the next, and spend his money in drink. He knows very well that he has never to wait for work, but that work is always waiting for him. His wants are few and easily satisfied. He lives in a wretched, unfurnished hovel, possessing but one recommendation, warmth in the winter. His bed is but a piece of felt and a straw pillow; he has no sheet or other covering. He sleeps in his clothes, and his sheep-skin coat serves him for a quilt. His dress is of common print, and he generally wears it until it drops off from age. A thick sheep-skin coat is his dress in winter, and this is seldom taken off during the cold months. His food consists principally of black bread, made from rye, salted, sun-dried fish, cheese of very poor quality, eggs, and occasionally pork; the better class of workmen generally have a

noon-day meal of soup made with meat and vegetables. His drink is tea, quass, (a kind of weak beer,) and vodki, (a very pure and cheap spirit made from rye.) Of this spirit large quantities are consumed. His recreation is drinking, with its accompaniments, singing and dancing. Such lodging, such food, such clothing, such amusements, are totally unfit for an Englishman. Under such circumstances he could not long retain health. In considering, therefore, what the cost of living in this part of Russia would be for an Englishman, (and it is necessary to estimate this, for the lines of railway now projected must ere long create a demand for skilled workmen,) we must take his way of living at home, and see what the expense would be to live in the same style here. Supposing him to be married, and to have three children, he would require a house with three rooms. The interior comforts and arrangements which such a house would possess in England would not be found; it would be without drains, closets, or water, and the doors and windows would be ill constructed. For such a house the rent would be about \$75 a year; four meals a day, breakfast, dinner, tea, and supper, could not be estimated at less than 84 cents; clothing, fuel, light, and household expenses could not be estimated at less than 72 cents a day. Thus, with strict economy, the English workman's yearly expenditure with his family would be—

For food.....	\$319 08
For clothes, fuel, &c.....	273 60
For rent.....	75 00
<b>Total.....</b>	<b>667 68</b>

The above does not include drinks or any kind of recreation, and though the sum may appear large, yet it is carefully calculated, and, if anything, underestimated. An English second-class engineer who, with his wife, has resided in this town (Berdianak) for the past two years, assures me that his monthly bill for food alone, without liquor, amounts to £9. He receives £18 a month, and these wages he computes as equal to about £12 in London. As already shown, the diet of the natives is unfit for an Englishman, but the country possesses all the requisites for an Englishman. The average prices of necessities are as follows: Meat, per pound of 14 ounces, 6 cents; bread, 4 cents; butter, 28 cents; potatoes, 1 cent; tea, \$1.20; coffee, 20 cents; loaf-sugar, (there is no brown,) 20 cents; coals, per ton, \$9.68.

During the winter months the entire population are dressed in fur. The ordinary material is sheep-skin, and coats made from it cost from \$12.50 to \$22.50.

#### WAGES IN ODESSA IN 1870.

[From report of the British consul.]

The wages paid to native workmen and laborers are as follows;

	United States gold.
Working engineers, from.....	\$0 94 to \$1 32
Working carpenters, from.....	87 to 1 32
Working blacksmiths, from.....	87 to 1 18
Ordinary laborers, (mechanics,) from.....	50 to 66
Common laborers employed in paving, &c., in 1866, from.....	21 to 1 05
Common day-laborers, (according to the season,) from.....	40 to 1 32
Watchmakers, monthly wages, from.....	16 50 to 40 00

Apprentices are taken from four to six years, found with lodging and food, and, after the above periods, promoted to be workmen.

Gold and silver smiths: Workmen are paid monthly at the rate of \$6.60 to \$10, and upward of \$40, a very few as high as from \$50 to \$66.

The Russian workman appears to be intelligent and laborious, but is said to be careless and indifferent as to the quality of the work he turns out, and, therefore, will always require to be sharply looked after. It is not thought that he is often conscientious, or that he takes a pride in the quality of the work he may execute, and he would undertake any that was given him without reference to his character as a workman. It is probable that Russian artisans are fast acquiring greater skill in all departments of their trade, for the Russian is of an imitative, if not an inventive, turn, and as he improves in skill he will naturally, one may suppose, improve in the care and quality of the work he executes.

#### WAGES IN ODESSA IN 1873.

The following information was furnished by Mr. Smith, consul of the United States at Odessa, October, 1873:

*Rate of wages paid for farm and mechanical labor in Odessa, Russia, in the year 1873.*

Occupation.	Daily wages.		Monthly wages.
	With board.	Without board.	With board.
<b>FARM-LABORERS.</b>			
Experienced hands in summer.....	\$1 00	-----	\$30 00
Experienced hands in winter.....	50	-----	12 00
Ordinary hands in summer.....	67	-----	10 00
Ordinary hands in winter.....	50	-----	8 00
Common laborers at other than farm-work.....	75	-----	10 00
Female servants.....	50	\$0 75	7 00
<b>SKILLED WORKMEN.†</b>			
Blacksmiths.....	1 50	1 00	-----
Bricklayers or masons.....	1 50	1 00	-----
Cabinet-makers.....	1 25	1 30	-----
Carpenters.....	1 50	1 00	-----
Coopers.....	1 25	1 30	-----
Machinists.....	1 75	2 00	-----
Painters.....	1 50	1 00	-----
Plasterers.....	1 50	1 00	-----
Shoemakers.....	1 50	1 00	-----
Stone-cutters.....	-----	1 25	-----
Tailors.....	1 25	1 50	-----
Tanners.....	1 00	1 12	-----
Tinmiths.....	1 00	1 12	-----
Wheelwrights.....	1 00	1 12	-----

\* Women one-third price.

† By the day only.

Price of board for workmen, per week, October, 1873, \$5; for work women, per week, October, 1873, \$3.

## PRICES OF PROVISIONS, GROCERIES, ETC.

*Prices of provisions, groceries, and other leading articles of consumption, also of house-rent and board, in the town of Odessa; furnished by Mr. Bragg, of the establishment of Kendrick & Co.*

Articles.	Retail prices in 1872.	Articles.	Retail prices in 1872.
<b>PROVISIONS.</b>		<b>Sugar:</b>	
Flour:		Coffee B ..... per pound.	\$0 10
Wheat, superfine ..... per barrel	\$8 50	Soap, common ..... do.	7
Wheat, extra family ..... do.	10 00	Starch ..... do.	9
Rye ..... do.	5 00	Fuel:	
Corn-meal ..... do.	4 00	Coal, best ..... per ton.	12 00
Beef:		Wood, hard, (cutting included) ..... per cord.	12 00
Fresh, roasting pieces ..... per pound.	10	Wood, pine, (cutting included) ..... per cord.	8 00
Fresh, soup pieces ..... do.	7	Oil:	
Fresh, rump-steaks ..... do.	10	Petroleum ..... per gallon.	75
Corned ..... do.	5	Lamp ..... do.	1 34
Veal:		<b>DOMESTIC DRY-GOODS, ETC.</b>	
Fore-quarters ..... do.	8	Shirtings:	
Hind-quarters ..... do.	11	Brown, 4-4, standard quality ..... per yard.	20
Cutlets ..... do.	12	Bleached, 4-4, standard quality ..... per yard.	20
Mutton:		Sheetings:	
Fore-quarters ..... do.	7	Linen, 9-8, standard quality ..... per yard.	90
Leg ..... do.	8	Linen, 9-8, standard quality ..... per yard.	95
Chops ..... do.	10	Cotton flannel, medium quality ..... per yard.	25
Pork:		Tickings, linen ..... do.	55
Fresh ..... do.	10	Prints ..... do.	30
Corned or salted ..... do.	14	Mousseline de laines ..... do.	40
Hams, smoked ..... do.	15	Satinets, medium quality ..... do.	1 00
Shoulders ..... do.	14	Boots, men's heavy ..... per pair.	5 00
Sausages ..... do.	20		
Lard ..... do.	17	<b>HOUSE-RENT.</b>	
Codfish, dry ..... do.	16	Four-roomed tenements ..... per month.	35 00
Mackerel, pickled ..... do.	6	Six-roomed tenements ..... do.	50 00
Butter ..... do.	25		
Cheese ..... do.	40	<b>BOARD.</b>	
Potatoes ..... per bushel.	1 00	For men, (mechanics or other workmen) ..... per week.	5 00
Rice ..... per pound.	5	For women ..... do.	3 00
Beans ..... per quart.	12		
Milk ..... do.	10		
Eggs ..... per dozen.	12		
<b>GROCERIES, ETC.</b>			
Tea, Oolong or other good black ..... per pound.	1 00		
Coffee:			
Rio, green ..... do.	25		
Rio, roasted ..... do.	30		
Sugar:			
Good brown ..... do.	9		

## EXPENDITURES OF A WORKMAN'S FAMILY.

*Average weekly expenditures of a family consisting of two adults and five children, the head of which is employed in the establishment of Messrs. Kendrick & Co., in the town of Odessa, Russia.*

Weekly earnings in 1873, \$15 per week.

Articles.	Value.	Articles.	Value.
Flour and bread .....	\$1 75	Fuel .....	\$1 10
Fresh, corned, salted, and smoked meats.	1 60	Oil or other light .....	30
Lard .....	35	Spirits, beer, and tobacco, (if any) .....	25
Butter .....	40	House-rent .....	2 20
Sugar and molasses .....	60	For educational, religious, and benevolent objects .....	1 50
Milk .....	50	Total weekly expenses .....	12 60
Tea and coffee .....	50		
Fish, fresh and salt .....	20	Clothing per year .....	75 00
Soap, starch, salt, pepper, vinegar, &c. ..	35	Taxes per year .....	2 00
Eggs .....	20		
Potatoes and other vegetables .....	50		
Fruits, green and dried .....	50		



## DEVELOPMENT OF RUSSIAN MANUFACTURES.

While the manufactures of Russia are as yet very limited,\* her agricultural resources are such as to make her a sharp competitor with the United States in the European grain market. That which, for the present, gives us a decided advantage over her is the extensive use in this country of improved agricultural machinery, which, to the great mass of Russian agriculturists, is as yet unknown.† She possesses vast areas of territory whose soil and climate are all that could be desired, and her facilities for transportation, which were formerly very imperfect, have been so much improved of late years that the wheat product of a large region can now be carried by rail to Odessa and other ports of shipment. The cheapness of labor, and that tardiness to adopt new modes of industry, which is natural to a peasantry but recently released from serfdom, have thus far militated against the introduction of machinery and improved implements into agricultural industry; but it must be remembered that the word "progress" has been stamped upon the operations of modern Russia, and that the masses of the peasantry cannot long remain unaffected by that spirit of improvement of which the visitor to Russia sees so many evidences on every side. Moreover, special efforts for the elevation of the peasantry will not be lacking, for the large-hearted beneficence of the Emperor Alexander II, (properly surnamed "The Great,") who, in a single day, created over forty millions of freemen, will not permit him to leave the great work he has undertaken in an incomplete condition. Already, in fact, have measures been adopted to surround the emancipated serfs, as rapidly as practicable, with the conditions befitting the state of freedom to which they have been raised.

In view of the rapidity with which the events of national development succeed each other in this age of progress, we may look forward to a day by no means remote when Russia will so far utilize her ample stores of ore, both of iron and other metals, of anthracite and bituminous coal, and of all the raw materials of industry, as to compete successfully, both in textile and metallic products, with the manufacturing nations of Western Europe.

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\*As has already appeared in the extracts from the works of MM. Skaliowski and Nébolsine, presented on previous pages, the manufacture of textile fabrics for home consumption has attained a considerable magnitude, while the manufacture of iron, both for the domestic and foreign market, has long been a very important industry.

†At the exposition held at Moscow in 1872 the author observed an extensive variety of the most improved agricultural machinery of foreign origin. Within three miles of that old and celebrated city he saw in actual use the primitive plow, described in sacred and profane history, consisting of a bent root or a crooked stick, without any improvement on the ancient model, except a piece of iron as a shoe, or apology for a share. He also noticed, in the same vicinity, the threshing of grain with a flail, not on a threshing-floor, but on the bare ground.

## LABOR IN AFRICA.

Although it was not intended to submit in this report any data in regard to labor in Africa, yet, as circulars similar to those used elsewhere were sent to the consuls of the United States at Tunis and Tripoli, the information which, in response thereto, they have furnished is here-with presented.

## RATES OF WAGES.

*Statement showing the rates of mechanical and farm labor in Tunis and Tripoli, Africa, in the year 1873.*

Occupation.	Tunis.			Tripoli.		
	Daily wages, with board.	Daily wages, without board.	Monthly wages, with board.	Daily wages, with board.	Daily wages, without board.	Monthly wages, with board.
<b>Skilled workmen, (by the day only):</b>						
Blacksmiths .....		\$0 60			\$0 80	
Bricklayers or masons .....		60			52	
Cabinet-makers .....		75			52	
Carpenters .....		60				
Coopers .....		60			52	
Machinists .....		75				
Painters .....		75				
Plasterers .....		50				
Shoemakers .....		37			60	
Stone-cutters .....		60				
Tailors .....		60			48	
Tanners .....		37			48	
Tinsmiths .....		60				
Wheelwrights .....		60				
<b>Farm-laborers:</b>						
Experienced hands in summer .....	\$0 30	60	\$9 00	\$0 24		\$3 89
in winter .....	30	60	9 00	16		3 40
Ordinary hands in summer .....	20	40	7 50			
in winter .....	20	40	7 50			
Common laborers at other than farm-work .....	20	40	7 50		18	
Female servants .....	10	20	5 00			1 64

## EXPENDITURES OF WORKMEN'S FAMILIES.

*Statement showing the average weekly expenditures of two families, one in Tunis and one in Tripoli, Africa, in the year 1873.*

Articles.	Tunis, two adults and five children.	Tripoli, two adults and three children.	Articles.	Tunis, two adults and five children.	Tripoli, two adults and three children.
Flour and bread .....	\$3 00	\$0 85	Eggs .....	\$0 30	
Fresh, corned, salted, and smoked meats .....	1 00	18	Potatoes and other vegetables .....	1 00	\$0 06
Lard, olive-oil .....	37		Fruits, green and dried .....	37	03
Butter .....	37		Fuel .....	62	12
Cheese .....	50		Oil or other light .....	30	24
Sugar and molasses .....	20	07	Other articles .....	50	16
Molasses and sirup .....			Spirits and tobacco (if any) .....	37	
Milk .....	25		House-rent .....	1 00	64
Coffee .....	30	06	For educational, religious, and benevolent objects .....	3 50	1
Tea .....					
Fish, fresh and salt .....	25	20	Total weekly expenses .....	13 60	2 67
Soap, starch, salt, pepper, vinegar, &c .....	40	06	Clothing per year .....	60 00	23 00
			Taxes per year to British consul .....	5 00	1 21

Weekly earnings in 1873, \$15 per week.

## PRICES OF PROVISIONS, GROCERIES, ETC.

*Statement showing the prices of provisions, groceries, and other leading articles of consumption, also of house-rent and board, in Tunis and Tripoli, Africa, in the year 1872.*

Articles.	Tunia.	Tripoli.	Articles.	Tunia.	Tripoli.
PROVISIONS.			GROCERIES, ETC.		
Flour:			Tea, Oolong, or other good black,		
Wheat, superfine ..... per bbl.	\$8 00	.....	per pound	\$0 20	\$1 33
Wheat, extra family ..... do ..	8 00	.....	Coffee, Rio:		
Beef:			Green ..... per lb	30	.....
Fresh, roasting-pieces ..... per lb	14	\$0 10	Roasted ..... do ..	40	.....
Fresh, soup-pieces ..... do ..	14	.....	Sugar:		
Fresh, rump-steaks ..... do ..	14	.....	Good brown ..... do ..	19	.....
Veal:			Yellow C ..... do ..	16	.....
Fore quarters ..... do ..	14	.....	Coffee B. .... do ..	10	.....
Hind quarters ..... do ..	14	.....	Soap, common ..... do ..	10	66
Cutlets ..... do ..	14	.....	Starch ..... do ..	12	14
Mutton:			Fuel, coal ..... per ton	22 00	19 46
Fore quarters ..... do ..	10	08	Oil ..... per jar.	62	2 31
Leg ..... do ..	14	.....			
Chops ..... do ..	14	.....	DRY-GOODS, ETC.		
Pork:			Gray T-cloth, 33 inches ..... per yd.		67
Fresh ..... do ..	16	.....	Shirtings, bleached ..... do ..		10
Sausages ..... do ..	20	.....	Tickings, good quality ..... do ..		16
Codfish, dry ..... do ..	08	08	Prints ..... do ..		13
Mackerel, pickled ..... do ..	08	.....			
Butter ..... do ..	50	18	HOUSE-RENT.		
Cheese ..... do ..	37	20	Four-roomed tenements ..... per mo.	10 00	3 94
Potatoes ..... per bush.	1 25	.....	Six-roomed tenements ..... do ..	12 00	4 13
Rice ..... per lb	60	06			
Beans ..... per qt.	1 25	.....	BOARD.		
Milk ..... do ..	06	.....	For men, (mechanics or other		
Eggs ..... per dos.	18	09	workmen) ..... per week.	3 00	.....

\* The jar weighs 23 pounds.

In transmitting the foregoing statement, Mr. Consul Vidal remarks:

The chief expense in Tripoli for the lower classes, Christians, Jews, or Mussulmans, is for barley, coffee, olive-oil, charcoal, and house-rents. Fuel is scarce, and therefore pretty high. Barley is the principal article of consumption for men and horses. The former will make a hearty meal with one or two pancakes of barley-flour and dipped in oil. Sometimes barley is eaten in its natural state. A person who keeps horses and Arab servants has to see that the latter do not eat the barley placed in the manger of the former, and do not drink the oil of his lamps.

Many of the articles enumerated in the above lists are luxuries here, and can scarcely be considered as forming part of the expenditures of a mechanic's family.

[Extract from a letter from G. H. Heap, esq., United States consul at Tunis, Africa.]

The Arab farm-laborer, who is paid sixty cents a day without board, lives upon black bread, a few olives, and some olive-oil, the whole not costing over fifteen cents. In consequence of the construction of a railroad by an English company, the price of common labor has increased over 50 per cent.

The manufactories in this consular district are carried on in a manner and on a scale as primitive and as small as in the Middle Ages. There are several guilds the members of which employ a few hands each. The principal corporations are the makers of red cape, worn everywhere in the East, the finest and most costly being made here; and the goat-skin tanners and dyers, the Tunisian skins being equal to those made in Morocco. In the south there are manufactories of woolen goods of various descriptions, some of which are fine and costly, and but little known out of this country. The Tunisian bernoses, however, is well known in Europe, and much prized. Beyond these there are few manufactures of any value and importance, and none on a large scale.

Nothing whatever is done here for the health, comfort, education, or morals of mechanics, and I can, therefore, give no facts in regard to these subjects.

## LABOR IN AMERICA.

The pages in the preceding part of this report have been devoted to the consideration of labor and the condition of laborers in ancient, mediæval, and modern times in various portions of the Old World.

It now only remains to present such facts as have been gathered in relation to labor in America; and as this volume is intended for circulation chiefly within the United States, it is only necessary to present, in a tabular form, the rates of wages paid in agricultural, mechanical, and manufacturing industry, together with the cost of subsistence and the expenditures of families of work-people in the several sections and States of the Union. An inquiry into the establishment and growth of the leading industries of the United States would enhance the value of this part of the work, but to treat this subject with the care and minuteness necessary to enlist the interest of readers already sufficiently familiar with its general outlines would require a separate volume, and would, moreover, be the repetition of a task which has already been accomplished by private enterprise.\*

### FARMS AND FARM-LABORERS IN THE UNITED STATES.

The following statement shows the acreage of improved and the total land in farms, and the number of persons engaged in agriculture, in the United States in the year 1870:

[Compiled from the United States Census.]

States and Territories.	Acreage of land in farms.		Number of persons engaged in agriculture.	
	Total.	Improved.	Males.	Females.
Alabama.....	14,961,178	5,062,204	226,768	64,860
Arizona.....	21,807	14,585	1,284	1
Arkansas.....	7,597,296	1,859,821	100,669	8,641
California.....	11,427,105	6,212,133	47,580	283
Colorado.....	320,346	95,594	6,462	.....
Connecticut.....	2,364,416	1,646,752	43,523	130
Dakota.....	302,376	42,045	2,522	.....
Delaware.....	1,052,322	698,115	15,907	66
District of Columbia.....	11,677	8,260	1,350	15
Florida.....	2,373,541	736,172	36,944	5,548
Georgia.....	23,647,947	6,831,856	262,152	73,993
Idaho.....	77,139	26,603	1,462	.....
Illinois.....	25,892,861	19,329,952	375,407	1,034
Indiana.....	18,119,648	10,104,279	266,349	428
Iowa.....	15,541,793	9,396,467	209,907	356
Kansas.....	5,656,879	1,971,003	72,918	310
Kentucky.....	18,680,106	8,103,850	257,426	3,654
Louisiana.....	7,025,817	2,045,640	114,530	20,937
Maine.....	5,838,058	2,917,793	81,956	55
Maryland.....	4,512,579	2,914,007	79,197	1,252
Massachusetts.....	2,730,283	1,736,221	72,756	54
Michigan.....	10,019,142	5,096,939	187,036	175
Minnesota.....	6,423,828	2,322,102	74,663	494
Mississippi.....	13,121,113	4,209,146	193,725	65,474
Missouri.....	21,707,220	9,130,615	262,595	1,373
Montana.....	139,537	84,674	2,110	1
Nebraska.....	2,073,781	647,031	23,083	32
Nevada.....	208,510	92,644	2,063	7
New Hampshire.....	3,605,994	2,334,427	46,562	11
New Jersey.....	2,989,511	1,976,474	62,943	185
New Mexico.....	833,549	143,007	18,432	236
New York.....	22,190,810	15,627,306	373,455	668
North Carolina.....	19,835,410	5,258,742	241,010	28,228
Ohio.....	21,712,420	14,469,133	396,267	757
Oregon.....	2,369,252	1,116,290	13,232	16
Pennsylvania.....	17,994,200	11,515,965	258,772	1,279

\* See "History of American Manufactures from 1608 to 1866," by J. Leander Bishop, M. D., 3 vols., octavo. Philadelphia: E. Young & Co.

*Farms and farm-laborers in the United States—Continued.*

States and Territories.	Acreage of land in farms.		Number of persons engaged in agriculture.	
	Total.	Improved.	Males.	Females.
Rhode Island.....	502,308	299,030	11,767	13
South Carolina.....	12,103,280	3,010,539	147,708	58,946
Tennessee.....	19,581,214	6,843,278	247,953	19,067
Texas.....	18,396,523	2,964,836	152,729	14,031
Utah.....	148,361	118,755	10,417	11
Vermont.....	4,522,804	3,073,257	57,889	94
Virginia.....	18,145,911	8,165,040	228,082	16,465
Washington.....	649,139	192,016	3,759	12
West Virginia.....	8,528,394	2,560,254	73,725	535
Wisconsin.....	11,715,321	5,899,343	158,300	1,367
Wyoming.....	4,341	338	164	1
Total.....	407,735,041	188,921,099	5,525,503	394,968

*Table showing the values of farms and of farm implements and machinery in the United States in the year 1870.*

[Compiled from the United States Census.]

States and Territories.	Of farms.	Of farming implements and machinery.
Alabama.....	\$67,732,036	\$3,266,924
Arizona.....	161,340	30,105
Arkansas.....	40,029,698	2,237,409
California.....	141,240,028	5,316,690
Colorado.....	3,385,748	272,604
Connecticut.....	124,241,382	3,246,599
Dakota.....	2,088,265	142,612
Delaware.....	46,712,870	1,201,644
District of Columbia.....	3,800,230	39,450
Florida.....	9,947,920	505,074
Georgia.....	94,559,468	4,614,701
Idaho.....	492,860	59,295
Illinois.....	990,506,346	34,576,567
Indiana.....	634,894,189	17,676,391
Iowa.....	392,662,441	20,509,562
Kansas.....	90,327,040	4,033,312
Kentucky.....	311,238,916	8,572,896
Louisiana.....	68,215,421	7,139,333
Maine.....	102,961,951	4,208,113
Maryland.....	170,369,684	5,263,676
Massachusetts.....	116,432,784	5,000,879
Michigan.....	396,240,578	13,711,979
Minnesota.....	97,847,442	6,721,120
Mississippi.....	81,716,576	4,456,633
Missouri.....	392,908,047	15,596,626
Montana.....	729,193	145,438
Nebraska.....	30,242,186	1,549,716
Nevada.....	1,485,505	163,718
New Hampshire.....	80,589,313	3,458,943
New Jersey.....	257,523,376	7,867,991
New Mexico.....	2,260,139	121,114
New York.....	1,273,857,766	45,997,712
North Carolina.....	78,211,063	4,028,111
Ohio.....	1,054,465,226	25,692,727
Oregon.....	22,359,989	1,293,717
Pennsylvania.....	1,043,481,522	35,658,126
Rhode Island.....	21,574,963	786,246
South Carolina.....	44,808,763	2,262,946
Tennessee.....	218,743,747	8,195,477
Texas.....	60,149,950	3,296,733
Utah.....	2,297,922	291,390
Vermont.....	139,367,075	5,259,579
Virginia.....	213,080,845	4,924,026
Washington.....	3,978,341	220,552
West Virginia.....	101,604,381	2,112,937
Wisconsin.....	300,414,064	14,239,364
Wyoming.....	18,167	5,723
Total.....	9,262,800,861	336,872,429

## I.—FARM-LABOR.

Table showing the average wages paid for farm and other labor in the several States and sections in the respective years 1860, 1870, and 1874.

States.	Experienced hands in summer.						Experienced hands in winter.					
	With board.			Without board.			With board.			Without board.		
	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.
<i>Daily wages.</i>												
NEW ENGLAND STATES.												
Maine	\$1 07	\$1 59	.....	\$1 49	\$2 14	.....	\$0 81	\$1 25	.....	\$1 09	\$1 67	.....
New Hampshire	1 04	1 63	\$1 75	1 38	2 12	\$2 25	75	1 06	\$1 00	1 06	1 44	\$1 50
Vermont	94	1 50	1 44	1 13	2 00	2 12	72	1 12	1 06	1 00	1 67	1 62
Massachusetts	1 06	1 49	1 50	1 40	1 99	1 87	73	1 09	1 05	1 05	1 53	1 50
Rhode Island	75	1 00	.....	1 00	1 50	.....	42	75	.....	75	1 25	.....
Connecticut	1 13	1 50	1 25	.....	2 00	1 50	75	1 25	1 00	.....	1 75	1 50
MIDDLE STATES.												
New York	89	1 42	1 48	1 21	1 87	2 00	67	1 06	96	90	1 49	1 48
New Jersey	79	1 63	1 65	1 16	2 14	2 00	54	1 00	1 00	85	1 46	1 42
Pennsylvania	84	1 35	1 13	1 22	1 83	1 57	62	1 00	84	94	1 56	1 25
Delaware	75	1 50	1 00	.....	2 00	1 25	50	1 00	75	.....	1 50	1 00
Maryland	38	93	.....	63	1 32	.....	25	67	.....	50	1 03	.....
West Virginia	77	1 06	1 03	95	1 42	1 46	61	78	74	86	1 10	1 15
WESTERN STATES.												
Ohio	89	1 23	1 03	1 16	1 66	1 48	65	85	90	92	1 25	1 25
Indiana	96	1 23	1 13	1 26	1 50	1 47	71	89	86	99	1 27	1 11
Illinois	1 02	1 31	1 33	1 32	1 83	1 68	75	94	97	1 00	1 36	1 39
Michigan	93	1 30	1 25	1 22	1 79	1 75	70	98	1 25	1 05	1 39	1 75
Wisconsin	1 27	1 40	.....	1 66	1 81	.....	83	94	.....	1 20	1 34	.....
Minnesota	1 42	1 60	1 00	1 73	2 50	1 50	88	1 17	75	1 14	1 67	1 25
Iowa	1 06	1 49	78	1 34	1 97	.....	70	1 03	78	1 00	1 46	.....
Kansas	1 25	1 33	.....	1 75	1 96	.....	1 15	1 04	.....	2 37	1 60	.....
Nebraska	1 00	1 63	.....	1 38	2 25	.....	75	1 13	.....	1 25	1 75	.....
Missouri	81	1 14	1 50	1 12	1 52	.....	69	84	1 00	99	1 17	.....
Kentucky	77	1 06	.....	1 08	1 45	.....	60	81	.....	90	1 16	.....
SOUTHERN STATES.												
Virginia	60	85	64	1 02	1 23	80	47	63	47	69	83	67
North Carolina	60	68	1 00	63	93	1 25	36	53	75	52	77	.....
South Carolina	53	62	1 00	73	94	1 25	40	50	75	60	75	1 00
Georgia	55	78	.....	81	1 07	.....	50	64	.....	71	90	.....
Florida	.....	.....	.....	1 00	1 00	.....	.....	.....	.....	.....	75	.....
Alabama	63	75	75	88	1 09	1 00	55	63	50	80	94	75
Mississippi	60	95	75	75	1 45	1 00	52	73	.....	60	1 15	.....
Louisiana	1 00	1 03	65	1 25	1 39	1 05	1 00	64	65	1 25	1 34	1 05
Texas	66	90	87	1 00	1 21	1 25	58	75	75	81	1 07	1 00
Arkansas	75	1 07	.....	1 03	1 54	.....	63	86	.....	92	1 18	.....
Tennessee	74	1 00	.....	97	1 37	.....	55	73	.....	75	98	.....
PACIFIC STATES.												
California	2 07	2 11	1 50	2 50	2 69	2 50	1 39	1 50	1 00	2 13	2 06	2 50
Nevada	3 50	2 33	2 50	5 60	3 00	3 50	3 50	1 67	2 50	5 60	2 33	3 50
Oregon	2 14	1 75	1 00	2 50	2 25	1 60	1 51	1 25	1 25	1 94	1 62	2 00
TERRITORIES.												
Washington	3 12	2 50	2 25	4 12	3 00	.....	2 25	1 38	1 50	3 00	2 12	.....
Colorado	2 17	2 11	.....	2 83	2 86	.....	1 50	1 42	.....	2 00	2 12	.....
Dakota	1 50	2 57	1 00	2 00	3 18	1 25	1 25	1 46	75	1 50	2 15	1 00
Idaho	.....	2 83	1 50	.....	3 25	2 12	.....	1 50	1 12	.....	2 00	1 25
Arizona	.....	2 50	.....	.....	3 08	.....	.....	1 92	.....	.....	2 41	.....
Montana	.....	5 00	.....	.....	6 00	.....	.....	3 00	.....	.....	4 01	.....
New Mexico	75	1 00	1 00	1 13	1 50	2 50	50	75	1 00	1 00	1 25	1 50
AVERAGES.												
New England States	1 00	1 45	1 48	1 28	1 96	1 93	70	1 09	1 03	99	1 55	1 53
Middle States	74	1 32	1 96	1 03	1 76	1 66	53	92	86	81	1 36	1 26
Western States	1 03	1 34	1 15	1 37	1 84	1 58	77	97	93	1 17	1 40	1 35
Southern States	67	86	81	91	1 20	1 09	56	69	69	77	98	89
General average	86	1 24	1 17	1 15	1 69	1 56	64	92	88	94	1 32	1 26
Pacific States	2 57	2 06	1 67	3 53	2 65	2 53	2 13	1 47	1 58	3 22	2 00	2 67
Territories	1 29	2 04	1 44	2 52	3 27	1 95	1 38	1 63	1 09	1 88	2 29	1 25
Average	2 23	2 35	1 55	3 03	2 96	*2 19	1 76	1 55	1 33	2 55	2 15	1 96

Table showing the average wages paid for farm and other labor, &amp;c.—Continued.

States.	Experienced hands in summer.						Experienced hands in winter.					
	With board.			Without board.			With board.			Without board.		
	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.
<i>Monthly wages.</i>												
<b>NEW ENGLAND STATES.</b>												
Maine.....	\$19 00	\$27 55	\$25 00	\$39 37	.....	.....	\$15 22	\$22 00	\$15 50	\$24 75	.....	.....
New Hampshire.....	16 28	23 50	24 25	24 00	.....	.....	12 50	18 25	22 50	18 33	.....	.....
Vermont.....	17 28	28 00	29 00	25 83	.....	.....	13 86	21 25	20 00	21 50	.....	.....
Massachusetts.....	20 05	29 36	24 33	31 30	.....	.....	16 22	22 60	20 00	27 00	.....	.....
Rhode Island.....	14 00	22 00	.....	24 00	.....	.....	10 00	18 00	.....	20 00	.....	.....
Connecticut.....	16 00	28 33	30 00	.....	.....	.....	10 00	17 00	15 00	.....	.....	.....
<b>MIDDLE STATES.</b>												
New York.....	15 41	24 58	23 42	22 31	.....	.....	11 53	19 12	16 75	18 41	.....	.....
New Jersey.....	14 00	24 67	20 50	22 00	.....	.....	8 34	15 83	10 67	15 00	.....	.....
Pennsylvania.....	15 28	25 40	22 32	24 03	.....	.....	10 13	17 73	16 83	17 30	.....	.....
Delaware.....	14 00	20 00	15 00	.....	.....	.....	10 00	12 00	7 00	.....	.....	.....
Maryland.....	6 00	14 43	.....	8 00	.....	.....	4 00	11 00	.....	6 00	.....	.....
West Virginia.....	13 68	21 53	21 75	19 50	.....	.....	10 08	16 23	15 50	16 77	.....	.....
<b>WESTERN STATES.</b>												
Ohio.....	15 63	22 67	21 66	24 77	.....	.....	12 14	17 38	16 40	19 00	.....	.....
Indiana.....	16 74	23 33	21 69	24 20	.....	.....	13 03	18 51	14 62	19 35	.....	.....
Illinois.....	16 64	24 53	22 50	24 05	.....	.....	12 42	18 14	17 00	18 56	.....	.....
Michigan.....	15 00	23 29	24 00	23 26	.....	.....	11 87	18 75	25 00	20 00	.....	.....
Wisconsin.....	19 27	25 02	25 00	28 03	.....	.....	15 48	17 68	18 00	24 22	.....	.....
Minnesota.....	17 55	29 11	20 00	29 00	.....	.....	11 31	20 11	14 00	22 14	.....	.....
Iowa.....	16 09	24 88	20 00	23 08	.....	.....	13 11	18 39	20 00	20 39	.....	.....
Kansas.....	17 60	23 33	.....	27 50	.....	.....	11 75	20 83	.....	25 00	.....	.....
Nebraska.....	15 00	25 00	.....	20 00	.....	.....	15 00	20 00	.....	20 00	.....	.....
Missouri.....	14 57	23 40	.....	18 60	.....	.....	11 17	18 90	.....	14 50	.....	.....
Kentucky.....	14 77	20 21	.....	21 34	.....	.....	11 12	16 33	.....	17 52	.....	.....
<b>SOUTHERN STATES.</b>												
Virginia.....	11 42	13 26	10 40	17 78	.....	.....	9 04	9 54	8 80	13 61	.....	.....
North Carolina.....	9 00	12 80	12 00	13 50	.....	.....	8 00	9 80	.....	11 33	.....	.....
South Carolina.....	9 28	11 67	12 00	13 14	.....	.....	8 57	10 30	5 00	11 71	.....	.....
Georgia.....	11 43	14 50	12 00	16 00	.....	.....	9 36	11 44	12 00	11 75	.....	.....
Florida.....	.....	14 00	.....	.....	.....	.....	.....	14 00	.....	.....	.....	.....
Alabama.....	12 42	16 00	13 50	17 50	.....	.....	11 00	14 50	13 50	15 40	.....	.....
Mississippi.....	13 00	18 58	12 00	19 00	.....	.....	11 66	14 50	.....	20 00	.....	.....
Louisiana.....	11 00	20 66	19 00	17 33	.....	.....	11 00	16 94	19 00	17 33	.....	.....
Texas.....	13 00	18 50	16 66	20 33	.....	.....	10 66	15 40	13 00	19 33	.....	.....
Arkansas.....	15 00	18 88	.....	20 60	.....	.....	19 33	16 20	.....	17 20	.....	.....
Tennessee.....	14 16	18 32	.....	20 00	.....	.....	10 50	14 26	.....	15 33	.....	.....
<b>PACIFIC STATES.</b>												
California.....	40 56	42 60	25 00	55 63	.....	.....	31 67	33 89	25 00	48 33	.....	.....
Nevada.....	78 33	53 33	.....	101 25	.....	.....	70 00	40 00	.....	100 00	.....	.....
Oregon.....	45 83	35 75	40 00	70 00	.....	.....	35 71	30 75	30 00	56 67	.....	60 00
<b>TERRITORIES.</b>												
Washington.....	67 50	40 00	50 00	97 50	.....	.....	45 00	30 00	30 00	70 00	.....	.....
Colorado.....	30 00	39 75	.....	52 50	.....	.....	21 50	28 57	.....	40 00	.....	.....
Dakota.....	25 00	40 00	20 00	35 00	.....	.....	20 00	27 50	15 00	25 00	.....	.....
Idaho.....	.....	70 00	40 00	.....	.....	.....	.....	43 33	30 00	.....	.....	.....
Arizona.....	90 00	60 00	.....	150 00	.....	.....	.....	33 33	.....	.....	.....	.....
Montana.....	.....	76 00	50 00	.....	.....	.....	.....	35 00	35 00	.....	.....	.....
New Mexico.....	15 00	30 00	40 00	30 00	.....	.....	.....	20 00	20 00	.....	.....	.....
<b>AVERAGES.</b>												
New England States.....	17 10	26 46	27 09	26 90	.....	.....	12 97	19 85	18 60	22 32	.....	.....
Middle States.....	13 06	21 77	20 60	19 17	.....	.....	9 01	15 32	13 35	14 70	.....	.....
Western States.....	16 26	24 07	22 12	23 99	.....	.....	12 58	18 63	17 86	20 07	.....	.....
Southern States.....	11 97	16 11	13 45	17 52	.....	.....	10 21	13 35	11 88	15 30	.....	.....
General average.....	14 60	22 10	20 81	21 89	.....	.....	11 19	16 79	15 42	18 10	.....	.....
Pacific States.....	54 91	43 92	32 50	75 63	.....	.....	45 79	34 88	27 50	68 33	.....	.....
Territories.....	45 50	50 69	40 00	73 00	.....	.....	28 23	31 10	26 00	45 00	.....	.....
Average.....	50 21	47 37	36 25	74 32	.....	.....	37 31	32 99	26 75	56 67	.....	.....

Table showing the average wages paid for farm and other labor, &amp;c.—Continued

States.	Ordinary hands in summer.						Ordinary hands in winter.					
	With board.			Without board.			With board.			Without board.		
	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.
<i>Daily wages.</i>												
<b>NEW ENGLAND STATES.</b>												
Maine.....	\$0 94	\$1 18	.....	\$1 10	\$1 54	.....	\$0 63	\$0 94	.....	\$0 89	\$1 21	.....
New Hampshire.....	88	1 31	\$1 25	1 25	1 75	\$1 69	63	94	\$0 87	94	1 25	\$1 31
Vermont.....	75	1 14	1 00	1 01	1 50	1 62	57	88	87	86	1 25	1 37
Massachusetts.....	79	1 15	87	1 13	1 58	1 50	67	92	1 00	92	1 26	1 17
Rhode Island.....	50	83	.....	83	1 33	.....	40	67	.....	67	1 17	.....
Connecticut.....	1 00	1 58	1 00	.....	2 08	1 50	75	1 17	.....	1 50	.....	.....
<b>MIDDLE STATES.</b>												
New York.....	68	1 13	1 18	90	1 54	1 71	48	81	82	75	1 19	1 19
New Jersey.....	73	1 23	1 13	1 09	1 72	1 58	50	90	50	77	1 37	1 00
Pennsylvania.....	63	1 01	89	95	1 47	1 25	51	76	72	80	1 17	1 02
Delaware.....	50	75	88	.....	1 25	1 00	.....	50	75	.....	1 00	.....
Maryland.....	38	73	.....	62	1 04	.....	25	55	.....	50	82	.....
West Virginia.....	52	82	64	76	1 13	93	43	56	43	67	90	76
<b>WESTERN STATES.</b>												
Ohio.....	68	98	82	96	1 28	1 07	55	70	67	81	1 00	1 01
Indiana.....	71	94	84	96	1 32	1 23	57	70	64	84	1 04	89
Illinois.....	78	98	1 06	1 06	1 43	1 43	58	73	81	87	1 11	1 20
Michigan.....	73	1 00	1 00	1 02	1 45	1 40	55	74	.....	94	1 13	.....
Wisconsin.....	1 01	1 04	.....	1 41	1 40	.....	81	73	.....	1 13	1 10	.....
Minnesota.....	1 10	1 39	75	1 38	1 86	1 00	62	1 03	50	1 07	1 49	75
Iowa.....	76	1 09	70	1 01	1 52	.....	57	76	70	87	1 18	.....
Kansas.....	1 08	1 04	.....	1 50	1 50	.....	95	84	.....	1 50	1 30	.....
Nebraska.....	1 00	1 25	.....	1 25	1 68	.....	75	1 00	.....	1 00	1 50	.....
Missouri.....	67	82	1 00	93	1 14	.....	56	65	60	66	90	.....
Kentucky.....	64	84	.....	89	1 15	.....	48	64	.....	75	92	.....
<b>SOUTHERN STATES.</b>												
Virginia.....	52	63	54	66	97	76	40	50	44	56	77	62
North Carolina.....	33	48	.....	47	70	.....	28	41	.....	40	59	.....
South Carolina.....	34	53	75	58	78	1 50	31	48	50	52	70	75
Georgia.....	47	68	.....	68	81	.....	38	43	.....	65	60	.....
Florida.....	.....	.....	.....	75	.....	.....	.....	.....	.....	45	.....	.....
Alabama.....	47	61	75	70	82	1 00	43	47	50	60	73	75
Mississippi.....	48	75	50	81	1 29	75	38	59	.....	49	97	.....
Louisiana.....	.....	79	75	.....	1 11	1 25	.....	66	75	.....	1 00	1 35
Texas.....	54	69	50	75	1 00	75	49	61	50	75	91	75
Arkansas.....	55	84	.....	81	1 14	.....	45	62	.....	71	94	.....
Tennessee.....	51	72	.....	71	1 01	50	46	50	.....	62	74	.....
<b>PACIFIC STATES.</b>												
California.....	2 00	1 52	1 00	2 17	2 15	2 00	1 31	1 22	75	1 70	1 70	2 00
Nevada.....	3 00	1 83	1 50	4 00	2 67	2 50	3 00	1 59	1 50	4 00	2 17	2 50
Oregon.....	1 61	1 25	1 00	1 88	1 75	1 6	1 36	94	1 25	1 56	1 45	2 00
<b>TERRITORIES.</b>												
Washington.....	2 25	1 88	.....	2 75	2 37	.....	2 00	1 00	.....	2 50	1 50	.....
Colorado.....	1 75	1 68	.....	2 75	2 46	.....	1 25	1 25	.....	2 13	1 62	.....
Dakota.....	1 25	1 94	.....	1 50	2 75	.....	1 00	2 00	.....	1 50	2 75	.....
Idaho.....	.....	2 00	1 25	.....	2 25	1 75	.....	1 50	75	.....	2 40	1 00
Arizona.....	.....	1 75	.....	.....	2 33	.....	.....	1 33	.....	.....	1 99	.....
Montana.....	.....	4 00	.....	.....	5 00	.....	.....	2 50	.....	.....	3 25	.....
New Mexico.....	60	75	1 25	1 00	1 50	1 75	50	50	75	1 00	1 00	1 25
<b>AVERAGES.</b>												
New England States.....	81	1 20	1 02	1 07	1 63	1 52	61	92	91	86	1 27	1 22
Middle States.....	57	95	95	88	1 36	1 30	43	68	64	70	1 08	89
Western States.....	83	1 03	88	1 12	1 45	.....	64	77	65	97	1 15	96
Southern States.....	47	67	63	69	94	.....	40	53	54	59	76	82
General average.....	67	96	87	94	1 35	.....	52	73	68	78	1 06	1 01
Pacific States.....	2 20	1 53	1 17	2 62	2 19	.....	1 89	1 25	1 17	2 42	1 77	2 17
Territories.....	1 46	2 00	1 25	2 00	2 67	.....	1 19	1 44	75	1 78	2 03	2 19
Average.....	1 83	1 77	1 21	2 34	2 43	.....	1 54	1 35	96	2 10	1 90	2 14



Table showing the average wages paid for farm and other labor, &amp;c.—Continued.

States.	Ordinary hands in summer.						Ordinary hands in winter.					
	With board.			Without board.			With board.			Without board.		
	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.
<i>Monthly wages.</i>												
<b>NEW ENGLAND STATES.</b>												
Maine .....	\$14 44	\$20 67	\$20 00	\$22 37	.....	.....	\$11 44	\$17 67	\$12 00	\$20 75	.....	.....
New Hampshire .....	13 34	19 00	18 75	22 00	.....	.....	9 00	12 66	19 67	14 50	.....	.....
Vermont .....	13 66	23 00	18 00	23 67	.....	.....	10 50	17 00	16 50	17 00	.....	.....
Massachusetts .....	17 28	24 10	22 50	28 57	.....	.....	11 00	18 60	12 50	21 57	.....	.....
Rhode Island .....	12 00	18 00	.....	20 00	.....	.....	8 00	18 00	.....	18 00	.....	.....
Connecticut .....	12 00	19 33	15 00	.....	.....	.....	8 00	14 33	.....	.....	.....	.....
<b>MIDDLE STATES.</b>												
New York .....	11 83	19 88	24 92	18 28	.....	.....	9 48	15 46	10 50	15 31	.....	.....
New Jersey .....	9 92	19 33	16 00	17 17	.....	.....	7 00	12 80	10 00	13 84	.....	.....
Pennsylvania .....	11 52	18 37	17 04	20 00	.....	.....	8 64	14 20	13 24	14 93	.....	.....
Delaware .....	10 00	15 00	10 00	.....	.....	.....	7 00	9 00	.....	.....	.....	.....
Maryland .....	5 00	11 71	.....	8 00	.....	.....	4 00	9 21	.....	6 00	.....	.....
West Virginia .....	10 01	16 00	16 67	15 41	.....	.....	8 17	13 46	15 00	13 45	.....	.....
<b>WESTERN STATES.</b>												
Ohio .....	12 91	17 33	16 29	18 21	.....	.....	10 43	13 04	12 50	15 69	.....	.....
Indiana .....	13 09	18 48	16 44	19 02	.....	.....	11 14	15 03	13 44	16 48	.....	.....
Illinois .....	13 64	19 03	19 45	19 87	.....	.....	10 02	15 00	14 30	15 70	.....	.....
Michigan .....	12 30	18 50	.....	20 56	.....	.....	10 28	13 77	.....	17 62	.....	.....
Wisconsin .....	14 90	16 76	20 00	24 65	.....	.....	12 94	14 00	13 00	21 63	.....	.....
Minnesota .....	12 64	20 55	16 00	22 71	.....	.....	9 00	15 89	10 00	20 14	.....	.....
Iowa .....	13 00	18 85	17 00	19 33	.....	.....	11 06	14 04	17 00	19 00	.....	.....
Kansas .....	14 25	19 67	.....	24 00	.....	.....	11 50	14 23	.....	20 00	.....	.....
Nebraska .....	15 00	20 25	.....	20 00	.....	.....	15 00	16 00	.....	20 00	.....	.....
Missouri .....	11 84	17 00	.....	15 25	.....	.....	10 20	14 45	.....	13 50	.....	.....
Kentucky .....	10 70	15 29	.....	16 11	.....	.....	9 89	12 58	.....	13 83	.....	.....
<b>SOUTHERN STATES.</b>												
Virginia .....	8 04	10 09	9 25	12 35	.....	.....	7 02	7 81	8 25	12 11	.....	.....
North Carolina .....	7 00	9 10	12 00	10 00	.....	.....	6 50	7 00	.....	7 66	.....	.....
South Carolina .....	6 67	10 67	15 00	11 17	.....	.....	5 83	2 67	20 00	9 50	.....	.....
Georgia .....	9 50	11 89	10 00	13 33	.....	.....	7 40	8 75	10 00	11 33	.....	.....
Florida .....	.....	10 00	.....	10 00	.....	.....	.....	10 00	.....	.....	.....	.....
Alabama .....	9 60	11 64	11 00	13 20	.....	.....	8 40	9 21	11 00	11 60	.....	.....
Mississippi .....	11 00	14 67	10 00	19 00	.....	.....	10 00	10 83	.....	20 00	.....	.....
Louisiana .....	9 66	15 25	15 00	14 00	.....	.....	10 33	12 56	15 00	15 00	.....	.....
Texas .....	10 66	14 60	12 00	17 66	.....	.....	9 33	13 00	12 00	16 00	.....	.....
Arkansas .....	11 00	14 20	.....	17 80	.....	.....	8 66	11 00	.....	13 40	.....	.....
Tennessee .....	9 20	13 98	10 00	13 00	.....	.....	8 47	10 65	.....	12 30	.....	.....
<b>PACIFIC STATES.</b>												
California .....	30 45	30 53	.....	43 33	.....	.....	26 87	26 61	.....	32 00	.....	.....
Nevada .....	70 00	40 00	.....	100 00	.....	.....	60 00	30 00	.....	87 50	.....	.....
Oregon .....	37 00	28 25	40 00	51 00	.....	.....	32 00	23 25	60 00	45 00	.....	.....
<b>TERRITORIES.</b>												
Washington .....	50 00	37 50	40 00	62 50	.....	.....	.....	25 00	22 50	.....	.....	.....
Colorado .....	30 00	33 00	.....	55 00	.....	.....	15 00	22 75	.....	27 50	.....	.....
Dakota .....	20 00	30 00	.....	38 00	.....	.....	15 00	25 00	.....	22 50	.....	.....
Idaho .....	.....	55 00	32 50	.....	.....	.....	.....	35 00	30 00	.....	.....	.....
Arizona .....	.....	41 67	.....	.....	.....	.....	.....	25 00	.....	.....	.....	.....
Montana .....	.....	57 50	40 00	.....	.....	.....	.....	25 00	30 00	.....	.....	.....
New Mexico .....	.....	25 00	30 00	.....	.....	.....	.....	20 00	10 00	.....	.....	.....
<b>AVERAGES.</b>												
New England States .....	13 79	20 68	18 60	23 12	.....	.....	9 66	16 32	14 42	18 36	.....	.....
Middle States .....	9 71	16 75	16 93	15 77	.....	.....	7 34	12 45	12 20	12 71	.....	.....
Western States .....	13 12	18 33	17 53	19 97	.....	.....	11 04	14 42	13 37	17 60	.....	.....
Southern States .....	9 23	12 43	11 54	14 15	.....	.....	8 19	10 08	12 71	12 89	.....	.....
General average .....	11 46	17 05	16 16	18 25	.....	.....	9 07	13 34	13 17	15 39	.....	.....
Pacific States .....	45 82	32 93	40 00	64 78	.....	.....	39 62	26 62	60 00	56 83	.....	.....
Territories .....	33 33	39 95	35 62	51 83	.....	.....	15 00	23 39	23 12	25 00	.....	.....
Average .....	39 58	36 44	37 81	58 31	.....	.....	27 31	26 00	41 56	40 92	.....	.....

Table showing the average wages paid for farm and other labor, &amp;c.—Continued.

States.	Common laborers at other than farm-work.						Female servants.		
	With board.			Without board.			With board.		
	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.
<i>Daily wages.</i>									
NEW ENGLAND STATES.									
Maine.....	\$0 80	\$1 19	.....	\$1 14	\$1 54	\$1 50	\$0 38	.....	.....
New Hampshire.....	88	1 31	\$1 37	1 12	1 81	1 87	38	.....	\$0 50
Vermont.....	60	1 19	1 25	1 08	1 44	1 50	32	.....	46
Massachusetts.....	80	1 15	1 25	1 15	1 60	1 67	41	.....	.....
Rhode Island.....	50	1 00	.....	83	1 50	.....	25	.....	.....
Connecticut.....	1 00	1 67	1 00	.....	2 17	1 50	.....	.....	50
MIDDLE STATES.									
New York.....	88	1 28	1 19	1 21	1 67	1 53	41	.....	69
New Jersey.....	75	1 20	1 17	1 07	1 64	1 44	36	.....	75
Pennsylvania.....	79	1 16	99	1 19	1 65	1 40	31	.....	58
Delaware.....	50	1 00	1 00	.....	1 56	.....	.....	.....	50
Maryland.....	38	75	.....	50	1 08	.....	38	.....	.....
West Virginia.....	72	95	92	98	1 27	1 50	24	.....	31
WESTERN STATES.									
Ohio.....	79	1 08	97	1 08	1 49	1 29	34	.....	45
Indiana.....	81	1 16	84	1 06	1 56	1 25	26	.....	40
Illinois.....	87	1 14	1 13	1 19	1 60	1 53	37	.....	49
Michigan.....	82	1 08	1 50	1 20	1 57	1 75	36	.....	50
Wisconsin.....	89	1 08	.....	1 19	1 54	.....	32	.....	.....
Minnesota.....	80	1 34	.....	1 05	1 75	.....	33	.....	.....
Iowa.....	84	1 23	1 00	1 13	1 89	1 25	35	.....	28
Kansas.....	1 19	1 32	.....	1 75	1 67	.....	60	.....	.....
Nebraska.....	1 25	1 50	.....	1 62	2 13	.....	60	.....	.....
Missouri.....	73	98	1 00	1 03	1 48	1 50	29	.....	50
Kentucky.....	72	1 04	.....	99	1 39	.....	38	.....	.....
SOUTHERN STATES.									
Virginia.....	58	72	67	75	1 01	90	28	.....	29
North Carolina.....	44	60	.....	67	82	.....	16	.....	.....
South Carolina.....	53	80	80	78	1 01	1 00	29	.....	.....
Georgia.....	67	81	.....	88	1 09	.....	31	.....	.....
Florida.....	.....	.....	.....	.....	70	.....	.....	.....	.....
Alabama.....	63	91	50	84	1 21	75	32	.....	25
Mississippi.....	50	95	50	75	1 45	75	37	.....	.....
Louisiana.....	.....	1 25	62	.....	1 70	1 62	40	.....	50
Texas.....	63	93	.....	92	1 27	.....	37	.....	.....
Arkansas.....	75	1 01	.....	1 00	1 39	.....	52	.....	.....
Tennessee.....	61	80	.....	83	1 15	50	20	.....	.....
PACIFIC STATES.									
California.....	1 66	1 78	1 00	1 96	2 31	2 50	1 19	.....	.....
Nevada.....	3 50	2 18	1 50	4 12	3 00	2 50	4 00	.....	.....
Oregon.....	1 71	1 50	1 00	2 12	2 12	2 00	1 15	.....	1 00
TERRITORIES.									
Washington.....	2 00	1 88	1 00	2 50	2 50	1 50	1 50	.....	1 00
Colorado.....	2 50	1 82	.....	3 50	2 50	.....	2 75	.....	.....
Dakota.....	.....	2 21	.....	.....	3 00	.....	50	.....	27
Idaho.....	.....	2 50	1 25	.....	3 50	1 25	.....	.....	.....
Arizona.....	.....	2 25	.....	.....	3 25	.....	.....	.....	.....
Montana.....	.....	5 00	.....	.....	6 00	.....	.....	.....	.....
New Mexico.....	50	1 00	75	1 00	1 50	1 25	25	.....	.....
AVERAGES.									
New England States.....	80	1 25	1 22	1 06	1 68	1 61	35	.....	49
Middle States.....	67	1 06	1 05	99	1 48	1 47	34	.....	56
Western States.....	88	1 18	1 07	1 21	1 64	1 44	33	.....	44
Southern States.....	59	88	62	82	1 16	92	33	.....	35
General average.....	74	1 09	99	1 02	1 49	1 36	34	.....	46
Pacific States.....	2 29	1 82	1 17	2 73	2 48	2 33	2 11	.....	1 00
Territories.....	1 67	2 38	1 00	2 33	3 18	1 33	1 25	.....	63
Average.....	1 98	2 10	1 08	2 53	2 83	1 83	1 68	.....	81

Table showing the average wages paid for farm and other labor, &amp;c.—Continued.

States.	Common laborers at other than farm-work.						Female servants.		
	With board.			Without board.			With board.		
	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.
<i>Monthly wages.</i>									
<b>NEW ENGLAND STATES.</b>									
Maine.....	\$15 63	\$19 11		\$20 62			\$8 50	\$10 29	\$11 00
New Hampshire.....	10 00	17 00	\$25 00	16 00		\$35 00	7 33	11 12	12 00
Vermont.....	14 40	22 50	20 00	21 00			6 00	10 50	10 25
Massachusetts.....	19 11	26 50		29 57			6 56	10 29	13 30
Rhode Island.....	12 00	20 00		24 00			6 00	12 00	
Connecticut.....	16 00	23 33	15 00				6 00	10 50	8 00
<b>MIDDLE STATES.</b>									
New York.....	15 24	20 10	25 33	21 78			5 06	9 55	10 60
New Jersey.....	12 00	18 80	11 00	19 50			4 64	8 83	10 40
Pennsylvania.....	13 80	20 07	19 28	20 56			4 82	7 28	8 40
Delaware.....		16 00	10 00				4 00	8 00	4 00
Maryland.....	5 00	11 50		7 00			2 00	7 83	
West Virginia.....	4 10	20 67	14 00	20 54			4 50	6 36	7 00
<b>WESTERN STATES.</b>									
Ohio.....	14 31	18 00	18 80	18 86			5 39	8 52	7 93
Indiana.....	14 62	21 38	17 00	20 17			6 12	9 11	8 55
Illinois.....	12 90	22 45	24 25	21 37			6 80	9 45	10 18
Michigan.....	13 62	20 28		22 25			6 06	9 91	12 00
Wisconsin.....	16 46	20 42		24 59			6 17	8 65	9 00
Minnesota.....	13 44	22 89		22 67			5 97	8 98	
Iowa.....	14 05	21 10		21 25			5 79	9 31	8 00
Kansas.....	21 50	23 20		31 67			7 60	9 50	
Nebraska.....	20 00	21 50		25 00			13 00	14 50	
Missouri.....	16 00	21 80		18 00			4 67	7 55	
Kentucky.....	12 43	19 27		19 96			6 10	8 07	
<b>SOUTHERN STATES.</b>									
Virginia.....	10 15	11 92	10 80	15 32			4 04	5 48	4 80
North Carolina.....	8 34	11 70		12 00			3 60	5 00	7 00
South Carolina.....	10 33	12 00	8 00	14 17			5 22	7 40	8 00
Georgia.....	13 33	14 14		19 33			5 50	6 95	7 00
Florida.....		16 00						7 00	
Alabama.....	14 17	16 85	9 00	18 67			7 00	8 31	7 50
Mississippi.....	13 00	17 00	10 00	19 00			8 00	10 43	5 00
Louisiana.....	14 50	19 70	22 50	22 25			7 00	10 05	14 00
Texas.....	10 09	16 20		17 00			8 00	2 50	14 80
Arkansas.....	12 67	17 70		18 40			8 00	9 86	
Tennessee.....	10 00	15 26		15 13			4 80	6 62	9 00
<b>PACIFIC STATES.</b>									
California.....	42 88	34 81		47 50			27 08	27 89	
Nevada.....	73 33	40 00		100 00			52 50	33 33	30 00
Oregon.....	36 33	30 00		60 00		60 00	30 00	22 75	30 00
<b>TERRITORIES.</b>									
Washington.....		35 00					30 00	22 00	
Colorado.....	34 00	36 43		51 00			32 14	25 05	
Dakota.....	25 00	40 00		35 00			18 00	20 00	10 00
Idaho.....		73 33	27 50	22 25				40 00	30 00
Arizona.....		80 00						40 00	
Montana.....		70 00	50 00					50 00	40 00
New Mexico.....	12 00	25 00	16 00	18 00			8 00	10 00	6 00
<b>AVERAGES.</b>									
New England States.....	14 52	21 41	20 00	22 24			6 73	10 87	10 80
Middle States.....	10 03	17 86	15 92	17 88			4 17	8 08	8 68
Western States.....	15 41	21 12	20 02	22 34			6 66	9 43	9 28
Southern States.....	11 65	15 32	12 06	17 13			6 12	7 79	8 48
General average.....	12 90	18 92	17 00	19 90			5 93	9 04	9 16
Pacific States.....	50 84	34 94		69 16			36 53	27 99	30 66
Territories.....	23 67	42 54	31 16	34 67			22 04	29 58	21 59
Average.....	37 26	41 74	31 16	51 92			29 29	28 78	25 75

## II.—MECHANICAL LABOR.

Table showing the average daily wages, without board, paid in the several States and sections to persons employed in the under-mentioned trades in the respective years 1860, 1870, and 1874.

States.	Blacksmiths.			Bricklayers or masons.			Cabinet-makers			Coopers.			Carpenters.		
	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.
<b>NEW ENGLAND STATES.</b>															
Maine	\$1 97	\$2 78	\$2 37	\$2 30	\$3 25	\$3 50	\$1 88	\$2 71	\$2 12	\$1 74	\$2 67	\$2 12	\$2 00	\$2 43	\$2 75
New Hampshire	2 08	3 00	3 44	2 50	3 69	3 87	1 63	2 56	3 00	1 75	3 00	2 67	1 75	2 63	2 94
Vermont	2 21	2 88	2 88	2 63	3 56	2 75	2 19	3 12	2 88	2 13	3 17	2 75	2 05	2 87	3 00
Massachusetts	1 91	2 95	2 83	2 42	3 90	3 67	2 00	2 75	3 16	2 25	3 19	2 37	1 98	3 25	3 02
Rhode Island	1 50	2 50	.....	1 75	3 00	.....	2 00	3 25	.....	1 56	2 50	.....	1 50	2 50	.....
Connecticut	1 67	2 92	.....	2 00	3 58	.....	1 75	2 88	.....	2 00	3 00	.....	1 67	3 08	.....
<b>MIDDLE STATES.</b>															
New York	1 66	2 74	2 64	2 02	3 64	3 23	1 77	2 74	2 55	1 64	2 66	2 19	1 74	3 10	2 65
New Jersey	1 48	2 60	2 96	1 58	2 80	3 34	1 32	2 38	2 65	1 34	2 35	3 00	1 60	2 75	2 75
Pennsylvania	1 47	2 43	2 32	1 82	3 00	2 89	1 32	2 19	2 91	1 31	2 59	2 22	1 59	2 02	2 37
Delaware	1 50	2 50	3 00	2 00	4 00	3 50	1 50	2 50	3 00 (*)	2 50	2 00	1 50	1 50	2 75	2 75
Maryland	1 50	2 21	2 50	1 50	3 50	4 00	2 50	2 40	3 00	1 50	2 25	3 00	1 50	2 43	2 50
West Virginia	1 69	2 48	2 50	2 66	3 03	2 95	1 66	2 46	2 81	1 53	2 64	2 19	1 73	2 35	2 50
<b>WESTERN STATES.</b>															
Ohio	1 75	2 48	2 30	2 18	3 37	3 06	1 99	2 38	2 24	1 52	2 30	2 12	1 78	2 73	2 33
Indiana	1 93	2 60	2 00	2 60	3 61	3 25	1 84	2 55	2 62	1 62	2 41	2 25	1 83	2 83	3 31
Illinois	2 02	2 79	2 81	2 73	3 50	3 69	1 97	2 60	2 83	2 00	2 44	2 75	2 03	2 82	2 87
Michigan	2 10	2 78	.....	2 41	3 48	.....	1 88	2 67	.....	1 70	2 48	2 50	1 90	2 77	.....
Wisconsin	2 28	2 71	2 50	2 54	3 28	3 06	2 01	2 55	2 00	2 03	2 36	2 00	1 73	2 72	2 50
Minnesota	1 90	3 03	3 00	2 41	3 69	3 00	1 96	2 47	2 00	1 86	2 66	3 00	1 89	2 92	2 50
Iowa	2 17	3 01	2 50	2 47	3 63	3 50	2 10	2 60	2 50	1 95	2 61	.....	2 01	2 96	3 00
Kansas	2 69	3 29	.....	3 17	3 92	.....	3 00	3 18	.....	2 88	3 37	.....	2 75	3 10	.....
Nebraska	2 50	3 50	.....	3 50	4 25	.....	2 50	3 75	.....	3 09	.....	.....	2 50	3 88	.....
Missouri	2 03	2 78	3 50	2 71	3 70	4 00	2 10	2 66	3 00	2 00	2 61	2 50	2 05	2 85	3 00
Kentucky	2 03	2 74	2 63	2 68	3 81	3 50	1 84	2 63	2 75	1 88	2 71	2 90	2 28	3 24	3 00
<b>SOUTHERN STATES.</b>															
Virginia	1 40	2 09	2 20	1 75	2 09	2 00	1 68	2 14	1 88	1 55	2 13	1 63	1 74	2 50	1 70
North Carolina	1 50	2 04	2 50	1 83	2 41	3 00	1 50	2 06	2 50	1 00	1 75	.....	1 50	2 29	2 75
South Carolina	1 67	2 25	2 50	1 71	2 90	2 50	2 17	2 57	.....	1 56	2 18	.....	1 90	2 60	2 50
Georgia	1 88	2 71	3 00	2 56	3 00	2 50	2 08	2 58	2 75	1 44	2 43	3 00	2 13	2 88	2 75
Florida	2 23	.....	.....	2 25	.....	.....	2 25	.....	.....	2 00	.....	.....	2 50	.....	.....
Alabama	2 30	2 93	.....	2 25	3 09	.....	2 83	2 80	.....	2 50	2 72	.....	2 25	3 00	.....
Louisiana	2 70	3 30	4 00	2 60	3 52	3 50	2 12	2 72	2 50	2 50	3 00	3 00	2 70	3 75	2 25
Texas	2 66	2 86	3 00	3 33	3 36	3 75	3 50	2 71	2 50	2 37	3 00	.....	2 25	3 14	2 50
Mississippi	2 50	3 11	3 00	2 94	3 96	3 00	2 25	3 25	.....	3 50	3 58	.....	2 12	3 43	2 50
Arkansas	2 60	3 21	3 50	2 83	3 55	4 50	2 71	3 03	3 00	2 25	3 00	3 00	2 41	3 25	3 00
Tennessee	2 03	2 70	3 25	2 28	3 22	4 08	2 29	2 63	2 83	1 78	2 49	2 50	2 29	3 13	2 75
<b>PACIFIC STATES.</b>															
California	4 22	4 10	3 00	4 96	4 61	5 50	3 75	3 87	3 00	4 00	3 75	.....	3 95	4 14	3 00
Nevada	6 80	5 50	6 00	6 80	5 87	6 00	6 82	5 87	.....	5 84	.....	.....	7 00	5 75	6 00
Oregon	4 50	3 88	5 00	5 42	5 00	5 00	4 41	3 88	4 00	4 12	3 63	4 00	4 50	4 06	4 00
<b>TERRITORIES.</b>															
Washington	8 50	5 00	4 00	8 00	6 00	5 00	6 00	4 50	3 00	5 00	4 00	3 00	6 00	5 00	4 50
Colorado	5 25	4 88	.....	6 50	6 06	.....	4 87	5 13	.....	5 33	.....	.....	4 38	5 05	.....
Dakota	2 25	3 50	3 50	3 25	5 00	3 50	.....	.....	3 00	.....	3 50	.....	3 25	3 75	2 50
Idaho	.....	6 00	3 75	.....	9 00	5 50	.....	6 00	5 50	.....	5 00	.....	6 00	5 00	.....
Arizona	.....	6 00	.....	7 50	.....	.....	.....	6 00	.....	.....	5 50	.....	6 50	.....	.....
Montana	.....	7 00	4 00	.....	9 00	5 00	.....	7 00	4 00	.....	6 00	.....	7 50	5 00	.....
New Mexico	2 50	4 00	3 75	3 00	4 00	4 00	2 50	4 00	2 75	3 00	4 00	.....	3 00	4 00	4 25
<b>AVERAGES.</b>															
New England States	1 89	2 84	2 88	2 27	3 50	3 45	1 91	2 88	2 79	1 90	2 99	2 48	1 83	2 79	2 93
Middle States	1 55	2 49	2 65	1 83	3 33	3 32	1 68	2 45	2 82	1 46	2 59	2 43	1 61	2 59	2 50
Western States	2 13	2 68	2 66	2 67	3 66	3 37	2 11	2 75	2 56	1 95	2 69	2 50	2 10	2 98	2 79
Southern States	2 12	2 68	2 99	2 41	3 09	3 20	2 31	2 61	2 95	1 82	2 57	2 63	2 13	2 95	2 92
General average	1 92	2 72	2 79	2 30	3 40	3 33	2 00	2 67	2 78	1 89	2 67	2 51	1 92	2 82	2 60
Pacific States (gold)	5 17	4 49	4 67	5 73	5 16	5 50	5 01	4 54	3 50	4 06	4 41	4 00	5 15	4 65	4 33
Territories (gold)	4 63	5 20	3 80	5 19	6 65	4 00	4 46	5 44	3 65	4 00	4 76	3 00	4 16	5 40	4 25
Average	4 90	4 85	4 23	5 46	5 96	5 05	4 74	4 99	3 57	4 03	4 58	3 50	4 66	5 03	4 29

\* Piecework.

Table showing the average daily wages paid, &amp;c.—Continued.

States.	Painters.			Plasterers.			Shoemakers.			Stone-cutters.		
	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.
<b>NEW ENGLAND STATES.</b>												
Maine.....	\$1 92	\$2 69	\$2 50	\$2 27	\$3 28	\$3 50	\$1 70	\$2 46	\$2 50	\$2 32	\$3 41	\$3 50
New Hampshire.....	1 75	3 00	2 75	2 00	3 25	3 60	1 84	2 56	2 50	2 12	3 18	3 75
Vermont.....	2 04	3 00	2 62	2 65	3 63	3 00	1 44	2 31	2 50	2 25	3 31	3 00
Massachusetts.....	1 94	2 84	2 83	2 42	3 84	3 33	1 72	2 69	2 25	2 50	4 05	3 94
Rhode Island.....	1 50	2 75	.....	1 75	3 00	.....	.....	2 25	.....	2 00	3 50	.....
Connecticut.....	1 67	2 92	.....	1 92	3 42	.....	1 37	2 25	.....	2 13	3 63	.....
<b>MIDDLE STATES.</b>												
New York.....	1 77	3 01	2 63	2 11	3 72	3 07	1 52	2 30	2 36	2 17	3 87	3 15
New Jersey.....	1 75	2 65	2 92	1 84	2 90	3 17	1 83	2 30	1 96	1 92	3 00	3 00
Pennsylvania.....	1 85	2 52	2 42	1 76	3 15	2 74	1 35	2 64	1 78	2 01	3 24	2 26
Delaware.....	1 50	2 50	3 00	2 00	2 50	3 75	(*)	(*)	2 00	1 50	4 50	2 00
Maryland.....	1 50	2 50	3 00	2 00	3 58	3 25	2 00	2 20	2 50	2 00	2 75	3 00
West Virginia.....	1 84	2 70	2 40	2 08	3 15	2 58	1 57	2 25	2 62	2 18	3 11	3 22
<b>WESTERN STATES.</b>												
Ohio.....	1 94	2 71	2 29	2 08	3 57	2 64	1 50	2 30	2 08	2 28	3 25	2 89
Indiana.....	1 96	2 78	2 37	2 33	3 35	3 00	1 64	2 27	2 25	2 25	3 17	3 08
Illinois.....	2 02	2 77	2 56	2 49	3 38	3 38	1 98	2 34	2 31	2 40	3 51	3 30
Michigan.....	1 90	2 68	.....	2 30	3 40	.....	1 54	2 43	.....	2 25	3 13	.....
Wisconsin.....	2 08	2 71	2 75	2 49	3 17	4 00	2 13	2 26	1 25	2 75	3 19	4 00
Minnesota.....	1 96	2 92	3 00	2 33	3 50	.....	1 86	2 66	2 50	2 43	3 72	3 00
Iowa.....	1 93	2 78	2 50	2 47	3 37	3 00	1 85	2 46	1 50	2 36	3 33	3 00
Kansas.....	2 55	3 21	.....	2 69	4 13	.....	2 12	2 98	.....	3 25	4 08	.....
Nebraska.....	2 50	4 00	.....	4 00	3 95	.....	3 00	3 43	.....	4 00	3 63	.....
Missouri.....	2 46	3 03	3 00	2 71	3 70	3 50	2 00	2 64	2 50	2 92	3 72	3 50
Kentucky.....	2 17	2 96	2 90	2 37	3 53	3 10	1 96	2 56	2 50	2 65	3 53	3 10
<b>SOUTHERN STATES.</b>												
Virginia.....	1 80	2 40	1 63	1 71	2 82	2 00	1 44	1 86	1 58	2 00	2 94	3 38
North Carolina.....	1 50	2 34	3 00	1 67	2 46	3 00	1 06	1 69	3 00	1 58	2 67	.....
South Carolina.....	1 85	2 40	2 50	1 90	2 70	2 50	1 88	2 00	2 50	2 67	2 75	2 20
Georgia.....	2 13	2 75	2 75	1 94	3 06	2 50	1 75	2 36	2 50	2 18	3 50	3 50
Florida.....	.....	2 25	.....	.....	2 00	.....	.....	2 00	.....	.....	2 00	.....
Alabama.....	2 50	3 09	.....	2 67	3 42	.....	2 00	2 65	.....	3 50	4 00	.....
Louisiana.....	2 50	3 36	2 50	2 50	3 77	3 00	1 90	2 81	2 00	3 50	4 00	2 00
Texas.....	2 50	3 05	2 50	2 87	3 18	3 50	2 33	2 67	.....	3 17	4 25	3 75
Mississippi.....	2 00	3 32	.....	3 50	4 11	3 00	1 00	3 00	.....	1 50	3 40	.....
Arkansas.....	2 42	3 11	3 00	2 67	3 32	3 00	2 08	2 97	2 00	2 42	3 44	5 00
Tennessee.....	2 36	2 86	2 83	2 32	3 32	3 16	2 20	2 45	2 33	2 53	3 27	3 40
<b>PACIFIC STATES.</b>												
California.....	4 06	4 07	4 00	4 75	4 72	5 00	3 88	3 82	.....	4 95	4 68	5 00
Nevada.....	7 80	5 80	5 00	7 80	6 83	6 00	5 88	4 75	4 00	7 00	6 04	6 00
Oregon.....	4 34	4 10	4 50	5 60	5 00	5 00	3 95	3 50	3 50	5 40	5 00	5 00
<b>TERRITORIES.</b>												
Washington.....	6 00	5 50	5 00	6 00	6 00	5 00	5 00	4 00	.....	6 00	6 00	5 00
Colorado.....	4 37	5 15	.....	5 87	6 43	.....	4 00	4 83	.....	5 87	6 21	.....
Dakota.....	2 50	4 50	3 00	3 00	7 50	3 50	3 50	3 25	3 00	.....	4 00	.....
Idaho.....	.....	9 00	5 00	.....	11 00	6 00	.....	6 00	4 95	.....	11 00	5 00
Arizona.....	.....	6 75	.....	.....	8 50	.....	.....	5 67	.....	.....	8 50	.....
Montana.....	.....	7 50	4 00	.....	9 00	5 00	.....	7 00	4 00	.....	9 00	8 00
New Mexico.....	3 00	4 00	3 50	4 00	4 00	3 00	.....	4 00	2 50	4 00	4 00	3 00
<b>AVERAGES.</b>												
New England States.....	1 80	2 87	2 67	2 17	3 40	3 38	1 61	2 42	2 44	2 22	3 51	3 53
Middle States.....	1 70	2 65	2 73	1 97	3 17	3 09	1 65	2 34	2 20	1 96	3 41	2 86
Western States.....	2 13	2 96	2 67	2 57	3 55	3 23	1 97	2 58	2 11	2 69	3 50	3 26
Southern States.....	2 16	2 81	2 59	2 37	3 11	2 85	1 81	2 41	2 27	2 51	3 29	3 36
General average.....	1 95	2 82	2 66	2 27	3 31	3 14	1 76	2 44	2 25	2 35	3 43	3 26
Pacific States (gold).....	5 40	4 66	4 50	6 05	5 52	5 33	4 57	4 09	3 75	5 78	5 24	5 33
Territories (gold).....	3 97	6 06	4 00	4 72	7 49	4 50	4 17	4 96	3 44	5 29	6 96	5 25
Average.....	4 69	5 36	4 25	5 39	6 51	4 91	4 37	4 49	3 59	5 54	6 10	5 29

\* Piecework.

Table showing the average daily wages paid, &amp;c.—Continued.

States.	Tailors.			Tanners.			Tinmiths.			Wheelwrights.		
	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.	1860.	1870.	1874.
<b>NEW ENGLAND STATES.</b>												
Maine	\$1 86	\$2 64	\$3 50	\$2 09	\$2 64	\$2 50	\$1 82	\$2 50	\$2 25	\$1 80	\$2 75	\$2 50
New Hampshire	1 75	2 67	3 75	1 80	2 81	3 25	1 50	2 83	3 19	1 75	2 67	3 12
Vermont	1 65	2 31	2 50	1 70	2 62	2 75	1 88	2 75	2 68	1 83	2 82	3 00
Massachusetts	1 80	2 48	2 37	1 94	2 75	2 38	1 85	2 56	3 05	2 01	3 01	2 37
Rhode Island	2 00	3 00	.....	1 50	2 75	.....	1 75	2 00	.....	2 00	3 00	.....
Connecticut	1 37	2 45	.....	2 00	2 75	.....	1 67	2 83	.....	1 50	3 00	.....
<b>MIDDLE STATES.</b>												
New York	1 66	2 47	2 26	1 71	2 74	2 22	1 74	2 78	2 52	1 90	2 95	2 95
New Jersey	1 92	2 55	2 25	1 59	2 55	2 08	1 33	2 25	2 50	1 35	2 30	2 30
Pennsylvania	1 34	2 07	2 14	1 40	2 08	2 05	1 37	2 17	2 15	1 59	2 27	1 92
Delaware	(*)	(*)	2 50	1 50	2 00	2 00	.....	2 50	2 50	.....	2 50	2 50
Maryland	.....	2 25	1 75	2 00	2 60	1 50	2 00	2 25	2 25	2 00	2 54	2 50
West Virginia	1 42	2 20	2 72	1 50	2 10	2 44	1 75	2 48	2 38	1 86	2 64	2 75
<b>WESTERN STATES.</b>												
Ohio	1 50	2 28	2 30	1 74	2 45	2 16	1 72	2 42	2 00	1 96	3 28	2 38
Indiana	1 76	2 42	1 92	1 61	2 35	2 04	1 90	2 47	2 17	1 96	2 78	2 21
Illinois	1 80	2 30	2 33	1 95	2 50	2 50	2 01	2 64	2 25	2 25	3 04	3 75
Michigan	1 69	2 35	.....	1 79	2 55	.....	1 70	2 59	.....	2 08	3 06	.....
Wisconsin	2 30	2 38	1 50	2 36	2 61	2 00	2 24	2 50	2 50	2 23	2 66	2 00
Minnesota	1 64	2 43	2 50	1 93	2 85	.....	1 54	2 81	2 50	1 78	3 11	.....
Iowa	1 95	2 60	1 75	2 00	2 80	.....	1 86	2 70	2 00	2 51	2 84	2 50
Kansas	3 25	3 23	.....	2 50	3 15	.....	2 17	3 10	.....	2 50	3 56	.....
Nebraska	2 75	3 38	.....	.....	3 50	.....	2 87	3 50	.....	2 88	3 88	.....
Missouri	2 10	2 64	2 50	2 00	2 85	2 00	2 17	2 61	2 75	2 35	2 97	2 75
Kentucky	2 13	2 64	2 95	1 83	2 40	2 75	2 00	2 67	2 25	2 15	2 81	3 33
<b>SOUTHERN STATES.</b>												
Virginia	1 74	2 09	2 00	1 67	1 93	1 75	1 66	2 30	1 75	1 61	2 34	2 20
North Carolina	1 25	1 94	3 10	1 17	2 04	.....	2 00	2 17	2 75	1 53	2 45	2 50
South Carolina	2 10	2 17	2 50	2 34	2 58	.....	1 65	2 18	2 50	2 15	2 50	2 00
Georgia	2 00	2 46	3 50	2 50	2 75	.....	2 27	2 43	2 50	2 28	2 93	2 75
Florida	.....	1 75	.....	1 75	.....	.....	.....	1 75	.....	.....	2 37	.....
Alabama	1 94	2 62	.....	2 50	2 71	.....	2 50	2 90	.....	2 42	2 83	.....
Louisiana	2 12	2 84	2 00	.....	3 08	2 50	2 38	2 87	2 50	2 51	3 42	2 50
Texas	1 92	2 67	.....	3 12	2 79	.....	2 53	2 94	2 75	1 75	2 83	2 50
Mississippi	1 50	2 83	.....	1 50	3 17	.....	1 80	3 19	.....	3 09	3 61	.....
Arkansas	1 83	2 89	3 00	1 90	3 25	.....	2 17	3 14	4 00	2 17	3 25	.....
Tennessee	2 03	2 54	3 22	1 75	2 33	2 50	1 75	2 73	2 62	1 85	3 06	2 30
<b>PACIFIC STATES.</b>												
California	3 60	3 38	.....	4 00	3 97	.....	4 04	4 00	3 00	4 75	4 19	.....
Nevada	6 00	4 31	3 01	5 60	.....	.....	6 00	5 31	5 00	8 75	6 00	7 00
Oregon	3 80	3 50	3 50	4 10	3 31	4 00	4 25	3 61	4 50	4 67	4 00	5 00
<b>TERRITORIES.</b>												
Washington	.....	4 25	3 00	.....	5 00	3 00	6 00	4 75	2 50	6 00	5 00	5 00
Colorado	4 00	4 69	.....	.....	6 00	.....	4 50	5 60	.....	5 01	5 75	.....
Dakota	.....	3 00	3 10	3 00	.....	.....	.....	3 00	3 00	.....	4 00	3 00
Idaho	.....	8 10	.....	.....	8 00	.....	.....	7 03	4 25	.....	7 00	5 50
Arizona	.....	6 00	.....	.....	7 00	.....	.....	7 33	.....	.....	6 75	.....
Montana	.....	8 00	4 00	.....	.....	.....	.....	7 50	5 50	.....	8 00	5 00
New Mexico	.....	4 00	3 50	.....	4 00	.....	.....	4 00	3 25	.....	4 00	3 00
<b>AVERAGES.</b>												
New England States	1 74	2 60	3 03	1 84	2 72	2 72	1 75	2 74	2 84	1 82	2 88	2 75
Middle States	1 59	2 31	2 27	1 62	2 35	2 05	1 61	2 40	2 33	1 74	2 31	2 49
Western States	2 09	2 60	2 22	1 97	2 71	2 23	2 02	2 73	2 30	2 24	3 09	2 70
Southern States	1 84	2 43	2 75	2 06	2 59	2 25	2 07	2 60	2 67	2 14	2 87	2 42
General average	1 82	2 40	2 57	1 87	2 60	2 32	1 87	2 62	2 53	1 99	2 84	2 59
Pacific States (gold)	4 47	3 91	3 25	4 57	3 61	4 00	4 76	4 31	4 17	6 06	4 73	6 00
Territories (gold)	4 00	5 42	3 37	3 00	6 00	3 00	5 25	5 59	3 70	5 50	5 79	4 30
Average	4 24	4 67	3 31	3 78	4 82	3 50	5 00	4 95	3 93	5 78	5 86	5 15

\* Piecework.

## III.—FACTORY LABOR.

## COTTON-MILLS.

Before giving the rates of wages paid in the cotton-mills of the United States it may be well to present a statement showing the number and capacity of cotton-mills in the country and the consumption of cotton in the year ended July 1, 1874, which is condensed from an article in the Commercial and Financial Chronicle of November 21, 1874.

States.	Number of mills.	Number of looms.	Number of spindles.	Average size of yarn.	Average running time.	Average consumption of cotton per spindle.	Quantity of cotton used.	Quantity of cotton used.
<b>NORTHERN STATES.</b>								
				<i>No.</i>	<i>Weeks.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Bales.</i>
Maine .....	24	12,415	609,898	25.23	50.71	59.67	36,473,547	78,607
New Hampshire .....	42	20,422	855,189	23.43	51.46	69.89	59,759,468	124,782
Vermont .....	10	1,274	55,948	29.75	46.34	46.34	2,734,167	5,695
Massachusetts .....	194	71,202	3,769,692	22.55	49.89	53.93	203,325,299	434,201
Rhode Island .....	115	24,706	1,336,842	35.20	48.10	43.51	58,146,985	125,317
Connecticut .....	104	18,170	908,202	31.40	48.45	53.43	48,514,613	104,557
New York .....	55	12,478	580,917	32.	47.70	42.24	24,536,249	52,280
New Jersey .....	17	2,070	150,968	29.30	51.	53.50	8,078,647	17,411
Pennsylvania .....	60	9,772	452,064	17.51	42.80	84.	37,969,796	81,572
Delaware .....	8	796	47,976	22.24	49.66	66.14	3,174,174	6,841
Maryland .....	21	2,299	110,260	11.50	47.35	174.34	19,292,703	41,436
Ohio .....	5	236	90,410	11.83	36.80	69.49	1,826,304	3,826
Indiana .....	4	618	22,988	14.56	47.44	158.	3,671,827	7,912
Minnesota .....	1	24	3,400	3.	52.	99.41	338,000	728
<b>Total Northern .....</b>	<b>660</b>	<b>176,480</b>	<b>8,927,754</b>	<b>22.56</b>	<b>49.33</b>	<b>56.86</b>	<b>507,790,099</b>	<b>1,094,387</b>
<b>SOUTHERN STATES.</b>								
Alabama .....	16	1,360	57,594	10.50	48.37	112.83	6,490,079	13,772
Arkansas .....	2	28	1,256	12.	51.	121.69	130,000	293
Georgia .....	42	2,934	137,330	12.71	47.77	133.57	18,222,899	39,290
Kentucky .....	4	42	10,500	6.26	49.24	178.86	1,878,030	4,047
Louisiana .....	3	300	15,000	12.	47.02	86.31	1,294,500	2,790
Mississippi .....	11	348	15,150	11.33	39.29	75.17	1,138,804	2,545
Missouri .....	4	382	18,056	10.75	49.66	183.25	3,481,573	7,298
North Carolina .....	30	1,055	55,498	12.08	46.52	123.10	6,832,673	14,796
South Carolina .....	18	1,238	62,872	13.36	39.67	113.25	7,134,558	15,376
Tennessee .....	42	1,014	47,058	12.32	51.10	133.38	6,872,458	13,518
Texas .....	4	230	10,225	12.	47.02	127.80	1,278,125	2,735
Virginia .....	11	1,564	56,490	16.	47.57	95.23	5,334,025	11,496
<b>Total Southern .....</b>	<b>187</b>	<b>10,495</b>	<b>487,629</b>	<b>12.5</b>	<b>47.02</b>	<b>122.53</b>	<b>59,793,774</b>	<b>123,526</b>
<b>RECAPITULATION.</b>								
<b>Total Northern .....</b>	<b>660</b>	<b>176,480</b>	<b>8,927,754</b>	<b>22.56</b>	<b>49.33</b>	<b>56.86</b>	<b>507,790,099</b>	<b>1,094,387</b>
<b>Total Southern .....</b>	<b>187</b>	<b>10,495</b>	<b>487,629</b>	<b>12.5</b>	<b>47.02</b>	<b>122.53</b>	<b>59,793,774</b>	<b>123,526</b>
<b>Grand total .....</b>	<b>847</b>	<b>186,975</b>	<b>9,415,383</b>	<b>27.73</b>	<b>48.26</b>	<b>60.29</b>	<b>567,583,873</b>	<b>1,217,913</b>

It will be seen that the number of spinning-spindles in the United States on the 1st day of July, 1874, was 9,415,383, against 7,114,000 at the same date of 1870, and 6,763,557 at the same date of 1869, as follows:

Year.	Looms.	Spindles.	Yarn av- erage.	Average per spin- dle.
<b>1874.</b>				
North.....	176,480	8,927,754	22.56	56.86
South.....	10,495	487,629	12.5	122.53
<b>Total, 1874</b> .....	<b>186,975</b>	<b>9,415,383</b>	<b>27.73</b>	<b>60.29</b>
<b>1870.</b>				
North.....	147,682	6,851,779	22½	56.87
South.....	5,852	262,221	12½	124.23
<b>Total, 1870</b> .....	<b>153,534</b>	<b>7,114,000</b>	<b>22½</b>	<b>52.93</b>
<b>1869.</b>				
North.....		6,538,494	22	60.70
South.....		225,063	12½	138.13
<b>Total, 1869</b> .....		<b>6,763,557</b>	<b>27½</b>	<b>64.88</b>

The above records a very rapid progress since 1870, being about 33 per cent. in the number of spinning-spindles.

#### COTTON MANUFACTURES IN 1870.

The number of establishments engaged in the manufacture of cotton in the United States, as appears from the census-returns of 1870, was 956, employing 135,369 hands; capital invested, \$140,706,291; wages paid, \$39,044,132; value of materials used, \$111,736,936. The principal products were as follows:

Sheetings, shirtings, and twilled goods.....	yards.	478,204,513
Lawns and fine muslins.....	do..	34,533,462
Print cloths .....	do..	489,250,053
Warps .....	do..	73,018,045
Flannel .....	do..	8,390,050
Ginghams and checks .....	do..	39,275,244
Cassimeres, cottonades, and jeans.....	do..	13,940,895
Spool-thread .....	dozen.	11,560,241
Table-cloths, quilts, and counterpanes.....	number.	493,892
Seamless bags .....	do..	2,767,060
Yarn, not woven .....	pounds.	30,301,087
Bats, wicking, and wadding.....	do..	11,118,127
Cordage, lines and twines.....	do..	5,057,454
Thread .....	do..	906,068
Cotton waste.....	do..	7,921,449
Tape and webbing .....	do..	484,400
Seamless bags .....	do..	405,585
Other products .....	do..	10,811,028

Total quantity of all products 349,314,592 pounds, valued at \$177,489,739.



## WAGES IN COTTON-MILLS.

Table showing the average weekly wages paid to persons employed in the cotton-mills of the following States in 1869 and 1874.

Occupation.	Maine.		New Hampshire.		Massachusetts.		Rhode Island.		Connecticut.		New York.		Pennsylvania.		Delaware.	
	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.
<b>CARDING.</b>																
Overseer.....	\$21 50	\$23 50	\$18 03	\$20 25	\$23 40	\$23 50	\$17 00	\$17 00	\$16 60	\$14 13	\$15 00	\$19 75	\$25 00	\$15 25	\$19 00	\$12 00
Picker-tenders.....	7 50	6 70	7 70	8 47	8 25	7 50	7 80	7 72	7 00	6 50	7 00	6 75	7 00	7 00	7 95	7 95
Railway-tenders.....	6 50	4 50	4 57	5 35	4 22	4 22	3 50	4 47	4 60	6 06	4 80	3 50	4 00	4 00	4 00	4 00
Drawing-frame tenders.....	4 00	14 50	4 41	14 18	4 44	14 30	5 00	14 40	4 66	4 44	4 80	4 00	4 00	4 00	4 20	4 20
Spicer-tenders.....	5 75	17 13	5 65	16 09	6 50	17 00	6 12	17 49	6 00	5 80	5 50	4 25	4 00	4 00	4 20	4 20
Picker-boy.....	3 50	16 10	4 35	6 53	5 80	15 18	6 25	14 03	6 00	5 17	5 00	3 50	3 50	3 50	3 50	3 50
Grinders.....	10 00	10 37	8 94	9 53	9 50	9 18	9 08	9 10	9 50	9 25	8 00	7 50	7 00	7 25	8 70	8 70
Strippers.....	7 25	6 95	7 27	7 42	7 70	7 96	9 50	7 50	7 00	6 75	6 00	6 00	7 00	7 50	7 92	7 92
<b>SPINNING.</b>																
Overseer.....	22 00	23 50	16 83	20 25	21 00	22 50	15 60	17 69	17 50	17 96	15 00	11 25	16 00	15 25	20 00	20 00
Mule-spinners.....	10 87	10 75	11 64	10 52	11 75	9 50	9 50	10 16	9 30	9 00	10 00	10 50	14 00	15 00	9 10	9 10
Mule-backside pickers.....	2 50	2 60	3 21	2 76	3 14	2 75	2 85	2 32	2 50	2 62	3 50	2 50	2 00	3 00	1 80	1 80
Frame-spinners.....	4 40	15 12	5 50	15 30	6 75	15 10	5 00	13 70	3 25	3 33	3 50	13 50	.....	13 01	2 12	2 12
<b>DRESSING.</b>																
Overseer.....	20 00	21 00	17 00	17 00	21 00	22 50	13 75	14 80	16 50	16 44	13 30	15 00	.....	15 00	.....	.....
Second hand.....	17 78	13 50	10 66	10 22	13 10	13 25	9 00	11 53	14 40	12 00	.....	9 00	.....	12 00	.....	.....
Spoolers.....	4 50	4 94	4 44	4 26	6 50	16 08	5 00	14 32	4 55	3 33	4 25	13 75	16 00	14 80	5 25	5 25
Warpers.....	5 50	6 12	5 61	5 93	6 10	16 75	5 75	16 98	4 68	6 08	.....	14 25	.....	18 25	3 75	3 75
Drawers and twistars.....	5 75	6 12	6 34	16 40	6 00	16 00	5 00	.....	6 00	4 72	.....	7 50	.....	5 50	4 00	4 00
Dressers.....	11 10	10 67	11 43	11 94	14 00	13 50	11 25	13 11	11 80	11 06	.....	.....	.....	9 00	.....	.....
<b>WEAVING.</b>																
Overseer.....	21 00	22 50	15 53	21 75	23 30	22 50	18 33	18 65	15 00	30 06	15 00	15 00	16 00	18 00	.....	.....
Weavers.....	7 00	7 50	6 23	17 78	7 71	9 17	8 00	17 81	8 10	7 90	.....	9 00	10 00	17 75	7 34	7 34
Drawing in hands.....	6 00	6 00	4 63	6 50	7 00	7 00	7 50	17 25	6 30	8 00	.....	.....	.....	15 00	.....	.....
<b>REPAIR-SHOP, ENGINE-ROOM, ETC.</b>																
Foreman.....	23 00	23 50	15 87	23 50	23 66	18 75	18 00	15 79	17 00	18 33	15 00	13 50	11 00	15 00	15 00	15 00
Wood-workers.....	14 25	13 50	19 96	15 80	16 50	16 50	15 00	13 56	16 25	17 65	.....	13 50	.....	15 00	15 00	15 00
Iron-workers.....	13 18	13 25	13 13	13 60	15 97	16 51	13 16	13 61	11 75	13 94	10 50	12 75	.....	15 00	15 00	15 00
Engineer.....	13 50	13 60	17 63	17 63	14 30	19 00	14 00	13 11	9 00	11 50	12 00	9 00	.....	14 50	14 50	14 50
Laborers.....	8 00	6 25	9 08	9 64	8 75	8 75	9 33	8 49	8 68	7 63	8 00	8 60	10 00	9 00	8 95	8 95
Overseer in cloth-room.....	17 50	20 25	11 67	16 00	17 75	16 50	15 00	12 43	11 00	10 50	19 00	5 00	12 50	12 00	9 00	9 00

Boys.

Females.

Part families.

Table showing the average weekly wages paid to persons employed in the cotton-mills of the following States, &amp;c.—Continued.

Occupation.	North Caro.		South Caro.		Georgia.		Alabama.		Mississippi.		Missouri.		Kentucky.		Tennessee.		Ohio.		In New Eng-land States.		In Middle States.		In Southern States.*		In United States.	
	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1874.	1868.	1874.	
<b>CARDING.</b>																										
Overseer.....	\$9 00	\$30 00	\$38 00	\$30 00	\$30 00	\$30 00	\$30 00	\$10 50	\$15 20	\$30 25	\$14 25	\$14 00	\$19 38	\$14 00	\$19 28	\$18 57	\$18 32									
Picker-tenders.....	6 00	6 00	5 00	4 50	4 50	4 50	4 50	4 50	9 00	7 00	7 00	15 00	7 35	6 88	6 19	7 52	6 18									
Railway-tenders.....	2 50	14 50	14 62	3 00	3 00	3 00	3 00	4 00	4 25	3 88	3 40	13 00	5 13	3 75	3 67	4 58	4 44									
Drawing-frame tenders.....	2 50	14 50	14 62	3 00	3 00	3 00	3 00	4 00	4 25	3 88	3 40	13 00	5 13	3 75	3 67	4 58	4 44									
Speeder-tenders.....	3 00	6 00	16 63	3 00	3 00	3 00	3 00	4 33	4 50	3 88	3 00	13 00	6 70	5 13	4 50	5 75	5 18									
Picker-boy.....	4 50	8 20	8 40	7 50	7 50	7 50	7 50	12 50	13 50	7 00	1 50	5 00	9 60	7 38	7 14	9 13	7 90									
Grinders.....	4 50	6 00	6 00	4 00	4 00	4 00	4 00	6 00	10 00	6 75	3 67	3 50	7 18	6 75	5 67	7 46	6 94									
Strippers.....	4 50	6 00	6 00	4 00	4 00	4 00	4 00	6 00	10 00	6 75	3 67	3 50	7 18	6 75	5 67	7 46	6 94									
<b>SPINNING.</b>																										
Overseer.....	9 00	30 00	36 00	30 00	30 00	30 00	30 00	15 00	14 00	13 00	13 00	14 00	20 18	13 25	18 75	17 99	18 21									
Mule-spinners.....	9 00	15 00	15 00	15 00	15 00	15 00	15 00	6 00	10 50	9 00	9 00	13 50	9 99	7 75	9 90	10 77	9 88									
Mule-backsilo piecers.....	2 40	12 50	12 50	12 50	12 50	12 50	12 50	13 00	13 00	3 75	3 60	13 00	2 65	9 75	3 01	2 69	2 75									
Frame-spinners.....	2 40	14 20	3 20	2 00	2 00	2 00	2 00	3 45	4 00	3 75	3 60	13 00	4 51	3 25	3 50	4 32	3 60									
<b>DRESSING.</b>																										
Overseer.....	7 50	15 00	36 00	15 00	15 00	15 00	15 00	10 50	14 00	7 50	12 00	12 00	18 35	15 00	14 00	16 96	15 95									
Second hand.....	3 40	14 50	14 50	9 00	9 00	9 00	9 00	12 00	12 00	1 00	1 00	1 00	19 17	10 50	7 08	11 79	10 02									
Scpoolers.....	3 00	14 50	14 50	3 25	3 25	3 25	3 25	6 00	6 75	4 50	4 00	4 00	4 58	4 33	4 23	4 90	4 37									
Warpers.....	3 00	7 00	16 25	5 00	5 00	5 00	5 00	4 50	5 50	5 50	7 50	7 50	6 37	6 23	5 33	5 23	5 91									
Drawers and twistlers.....	2 40	16 00	16 00	5 50	5 50	5 50	5 50	4 50	4 75	3 50	3 50	3 50	5 21	6 50	4 66	5 50	5 30									
Dressers.....	2 40	16 00	16 00	5 50	5 50	5 50	5 50	4 50	4 75	3 50	3 50	3 50	5 21	6 50	4 66	5 50	5 30									
<b>WEAVING.</b>																										
Overseer.....	9 00	30 00	32 00	30 00	30 00	30 00	30 00	19 75	16 00	15 00	15 00	15 00	20 97	16 50	20 09	17 58	19 91									
Weavers.....	6 00	17 00	16 50	5 50	5 50	5 50	5 50	15 00	16 50	4 00	4 50	4 50	8 05	8 38	6 17	7 75	7 93									
Drawing-in hands.....	2 40	17 00	16 50	5 50	5 50	5 50	5 50	15 00	16 50	4 00	4 50	4 50	8 05	8 38	6 17	7 75	7 93									
<b>REPAIR-SHOP, ENGINE-ROOM, ETC.</b>																										
Foreman.....	36 00	36 00	36 00	30 00	30 00	30 00	30 00	20 00	16 50	13 50	15 00	15 00	19 57	15 00	23 00	17 65	21 07									
Wood-workers.....	9 00	9 00	19 42	10 35	10 35	10 35	10 35	6 00	14 00	13 00	8 00	8 00	14 99	14 25	11 33	14 88	13 94									
Iron-workers.....	18 00	18 00	20 12	12 50	12 50	12 50	12 50	9 00	14 00	12 00	18 00	15 00	14 01	13 48	14 34	13 00	14 46									
Engineer.....	4 00	6 00	6 06	6 00	6 00	6 00	6 00	5 50	21 00	15 00	15 00	15 00	15 07	11 75	18 00	13 42	15 58									
Laborers.....	4 00	6 00	6 06	6 00	6 00	6 00	6 00	5 50	21 00	15 00	15 00	15 00	15 07	11 75	18 00	13 42	15 58									
Overseer in cloth-room.....	13 50	13 50	13 50	10 00	10 00	10 00	10 00	9 00	10 50	24 00	4 00	4 00	8 56	8 80	6 01	8 76	7 28									

\* Including Missouri.† Boys.‡ Females.§ Part females.

\* Including Missouri. † Boys. ‡ Females. § Part females.

## WOOLEN-MILLS.

The following statement, condensed from the census returns, shows the magnitude of the woolen industry in the United States in 1870.

States and Territories.	Establishments.	Cards.	Broad looms.	Narrow looms.	Spindles.	Hands employed.			Wages.	Value of products.
						Males above 16.	Females above 15.	Youth.		
		<i>Sets.</i>	<i>No.</i>	<i>No.</i>	<i>No.</i>				<i>Dollars.</i>	<i>Dollars.</i>
Alabama.....	14	24		2	530	38	1	2	4, 881	89, 998
Arkansas.....	13	17				29		2	6, 870	78, 698
California.....	5	46	163	22	3, 880	584	31	44	230, 300	1, 162, 754
Connecticut.....	108	660	1, 190	1, 703	178, 470	4, 257	2, 381	659	2, 860, 370	17, 371, 048
Delaware.....	11	30	53	174	8, 758	186	110	103	115, 137	576, 067
Florida.....	1	1				1				500
Georgia.....	46	72	6	389	14, 465	251	191	121	122, 138	471, 523
Illinois.....	109	250	210	423	36, 888	1, 040	468	228	535, 185	2, 849, 249
Indiana.....	175	346	232	948	57, 083	1, 450	711	308	726, 113	4, 329, 711
Iowa.....	85	199	133	241	31, 462	685	293	110	269, 432	1, 647, 606
Kansas.....	9	24	9	20	1, 616	56	24	11	30, 682	153, 159
Kentucky.....	125	208	34	288	10, 509	454	137	92	150, 373	1, 312, 458
Louisiana.....	2	12	20	80	4, 000	29	3	4	8, 900	36, 795
Maine.....	107	331	962	199	65, 249	1, 562	1, 250	210	1, 047, 151	6, 398, 861
Maryland.....	31	60	57	91	12, 348	247	67	13	82, 019	427, 596
Massachusetts.....	185	1, 367	4, 469	3, 374	470, 785	10, 761	7, 439	2, 350	7, 296, 302	39, 502, 542
Michigan.....	54	116	74	158	15, 650	408	208	51	202, 213	1, 204, 868
Minnesota.....	10	19	17	22	2, 664	77	60	9	45, 592	219, 662
Mississippi.....	11	17		30	344	34	31	51	28, 600	147, 323
Missouri.....	156	258	68	115	10, 371	548	85	85	137, 408	1, 256, 213
New Hampshire.....	77	351	909	699	117, 057	1, 819	1, 549	369	1, 355, 147	8, 766, 164
New Jersey.....	29	81	182	421	23, 457	524	402	168	334, 642	1, 903, 825
New Mexico.....	1	1	4	1	240	20			2, 000	21, 000
New York.....	252	845	1, 344	1, 127	162, 540	4, 498	2, 999	1, 315	2, 634, 326	14, 394, 736
North Carolina.....	52	78	11	66	2, 806	151	81	17	39, 101	226, 638
Ohio.....	223	334	300	752	52, 789	1, 340	669	234	559, 414	3, 267, 699
Oregon.....	9	21	65	25	4, 320	129	8	42	112, 213	505, 657
Pennsylvania.....	457	1, 317	2, 226	6, 394	316, 877	5, 825	5, 066	1, 873	4, 373, 628	27, 589, 586
Rhode Island.....	85	474	652	1, 710	157, 089	3, 354	2, 196	811	2, 228, 402	12, 552, 117
South Carolina.....	15	25	7	7	350	32	13	8	3, 615	34, 459
Tennessee.....	148	177	90	60	3, 614	342	61	25	62, 780	696, 934
Texas.....	20	29	14	16	1, 070	80	16	4	20, 278	152, 962
Utah.....	15	19	11	20	1, 430	58	39	9	48, 040	199, 600
Vermont.....	65	175	379	291	47, 719	930	751	189	644, 524	3, 619, 459
Virginia.....	68	116	61	76	6, 236	190	56	32	58, 765	488, 328
West Virginia.....	74	132	50	70	6, 387	207	79	30	59, 628	475, 763
Wisconsin.....	64	134	112	110	16, 445	506	205	64	229, 306	1, 250, 467
Total.....	2, 891	8, 366	14, 039	20, 144	1, 845, 496	42, 728	27, 682	9, 643	26, 877, 575	155, 405, 338

The principal products of woolen-mills in 1870 were as follows:

Beavers, 261,208 yards; cloth, cassimeres, and doeskins, 63,340,612 yards; cloth, felted, 1,941,865 yards; cloth, negro, 1,932,332 yards; cottonade, 75,000 yards; flannels, 58,965,286 yards; jeans, 24,489,985 yards; kerseys, 5,506,902 yards; lineys, 14,130,274 yards; repellents, 2,663,767 yards; satinets, 14,072,559 yards; tweeds and twills, 2,853,458 yards; number of shawls, 2,312,761; blankets, 2,029,715 pairs; yarn, 16,070,237 pounds.

## WAGES IN WOOLEN-MILLS.

Table showing the average weekly wages paid to persons employed in the woolen-mills of the following States in 1869 and in 1874.

Occupations.	Maine.		New Hampshire and Vermont.		Massachusetts.		Rhode Island.		Connecticut.	New York.	New Jersey.	Maryland.	Virginia and West Virginia.		Ohio and Indi.	Wisconsin, Iowa, and Kansas.		Minnesota.	California.	Oregon.	General average.	
	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.
Wool-sorters	\$12 00	\$9 80	\$11 00	\$10 95	\$12 55	\$10 91	\$10 12	.....	\$12 00	.....	\$8 00	\$7 50	\$13 30	\$12 75	\$10 05	\$11 70	\$5 25	\$22 00	\$10 86	\$10 94		
Wool-washers	9 72	9 30	9 00	8 73	7 05	8 87	8 66	8 50	7 00	88 75	5 00	6 00	10 16	8 33	9 00	9 83	9 00	5 25	9 00	8 21		
Dyers	11 68	10 10	11 75	9 77	9 90	11 08	8 00	8 00	10 00	10 25	13 50	12 75	16 25	15 00	14 25	11 30	9 25	5 25	11 38	10 56		
Overseers	18 00	24 00	15 00	20 25	17 50	18 61	16 50	20 00	21 00	.....	.....	.....	20 50	15 00	18 00	19 50	18 00	.....	18 44	19 17		
Carding and spinning:																						
Pickers	7 33	7 60	9 00	8 70	7 88	7 81	7 16	6 25	8 00	7 75	7 00	4 00	5 25	6 90	5 00	5 25	5 40	8 00	5 25	7 03	6 68	
Carders	6 33	15 04	7 15	16 39	4 50	16 01	6 32	5 50	5 76	5 50	5 00	4 75	5 62	8 50	10 00	9 80	15 46	15 75	5 25	7 50	6 34	
Spinners	11 50	10 37	12 00	9 41	9 83	9 45	9 00	6 25	10 50	8 33	12 66	7 72	9 75	14 27	12 00	15 00	19 00	18 25	6 00	8 00	11 20	8 85
Warpers and beamers	8 16	9 60	7 31	9 83	10 16	9 47	10 00	.....	10 00	10 00	7 12	7 00	9 37	10 75	9 00	16 94	19 62	7 25	.....	8 77	8 81	
Reelers	4 76	16 55	6 00	15 47	4 25	15 69	6 00	6 25	6 50	3 50	3 25	4 50	5 37	13 75	4 50	15 47	3 90	5 25	.....	4 61	5 30	
Overseers	14 66	19 50	17 50	15 83	17 30	17 57	18 19	12 90	13 00	21 00	13 00	12 75	8 00	19 50	15 00	.....	18 00	.....	18 46	15 94	.....	
Assistants	10 25	.....	6 37	.....	10 10	.....	12 00	.....	11 00	.....	.....	.....	8 00	.....	.....	.....	.....	.....	9 75	.....	.....	
Weaving:																						
Weavers	7 32	18 22	7 50	7 90	7 30	18 07	7 66	8 54	10 50	8 00	7 75	6 00	7 00	5 00	7 50	110 50	6 50	5 25	8 00	7 88	7 41	
Burlers	4 59	5 05	5 75	16 30	4 50	15 34	4 50	5 25	4 60	.....	3 50	3 00	5 49	15 00	6 00	4 60	5 00	5 25	.....	4 92	4 93	
Overseers	17 33	18 00	16 50	16 12	17 66	18 12	16 08	19 50	16 00	14 00	18 00	15 00	15 00	13 00	18 00	15 00	.....	24 00	.....	16 10	17 40	
Dressing and finishing:																						
Dressers or giggers	8 75	19 67	9 96	19 95	9 94	9 84	8 40	9 00	7 50	7 00	9 37	8 00	6 00	11 75	12 00	10 50	9 19	9 00	5 25	8 77	8 76	
Finishers	7 58	18 70	8 00	8 55	7 40	8 01	8 01	7 50	10 00	.....	.....	9 00	10 00	7 50	8 34	7 00	5 25	.....	8 08	8 11	.....	
Press-tenders	12 33	18 83	8 90	10 50	8 15	8 28	6 75	8 10	7 50	3 50	.....	12 00	14 00	9 00	13 50	10 00	9 34	9 00	5 25	9 21	8 42	
Drawers	9 33	7 67	10 50	8 60	8 54	8 26	9 50	10 50	11 50	8 12	7 50	13 50	9 00	10 00	.....	7 00	5 25	.....	9 21	8 91	.....	
Brushers	4 50	6 00	7 50	6 00	6 00	18 75	6 00	.....	4 50	3 00	.....	.....	6 00	7 00	8 50	5 25	6 00	9 00	5 25	6 12	6 91	
Pickers	9 27	7 25	8 40	8 62	8 62	11 50	8 75	.....	9 00	3 00	.....	.....	10 00	.....	6 00	9 00	5 25	.....	5 12	6 60	.....	
Overseers	20 25	18 00	16 50	15 78	19 06	18 03	20 25	24 00	16 50	12 00	18 00	15 00	15 00	21 00	18 00	.....	21 00	.....	17 62	19 14	.....	
Assistants	10 00	.....	9 75	13 25	9 40	6 37	12 00	15 00	12 00	.....	.....	9 00	.....	5 00	.....	.....	9 00	.....	10 36	9 72	.....	
Engine-room, yard, &c.:																						
Engineers	.....	.....	10 50	12 50	14 60	13 24	16 50	.....	19 50	9 75	17 25	9 00	11 50	12 50	15 00	.....	9 00	18 00	.....	12 64	12 34	
Mechanics	12 33	14 62	16 75	15 75	15 37	16 22	16 50	15 00	12 00	.....	.....	.....	18 00	.....	15 00	.....	15 00	.....	15 13	15 12	.....	
Laborers, (watchmen included)	9 16	8 58	9 00	8 98	9 20	9 25	10 66	10 00	9 25	.....	11 25	.....	10 00	8 75	10 50	9 00	15 00	12 00	15 00	9 88	10 73	
Foremen	18 00	18 00	10 50	10 50	17 00	12 75	.....	.....	9 00	.....	.....	.....	.....	.....	.....	.....	24 00	30 00	13 62	19 05	.....	

† All Chinamen, except overseer at \$34.

† Part females.

\* All females.

## IRON AND STEEL INDUSTRIES OF THE UNITED STATES.

The following interesting article, prepared by James M. Swank, Esq., secretary of the American Iron and Steel Association, exhibits the origin and development of the iron and steel industries in the United States:

## FORGES AND BLOOMARIES.

The first iron made in America was forged at a bloomery of the Virginia Company, in 1621, on the James River, twelve miles below the present site of Richmond. The Indians destroyed the forge in 1622. In 1631 the people of Massachusetts Bay built an iron-mill at Lynn; in 1644, a blast-furnace at Hammersmith; in 1652, a furnace and forge at Raynham, (Taunton;) and other iron-works followed in succeeding years, until in 1715 there were many furnaces and forges in Maryland, Virginia, and Massachusetts. At some of these forges the ore was converted into bar-iron by hammering, and all sorts of merchantable shapes were made, while at others the bar was hammered from the pig. Maryland hammered bar-iron was exported to England from 1732 to the Revolution, although in 1750 England endeavored to prohibit the production of bar-iron, as a common nuisance, in America. The Revolution stimulated the production of hammered iron, and forges sprung into existence in many parts of the colonies, but principally in Pennsylvania. Slitting-mills, for slitting hammered plate into nail-roads, became quite numerous. After the Revolution great changes took place. The puddling-furnace was invented by Cort, a native of England, in 1783 and 1784, and he also introduced the use of rolls. From 1790 to 1810 rolling-mills were gradually erected in this country to take the place of the forges, and at the present time only a very few forges in Virginia, North Carolina, and Tennessee make hammered bar-iron in small quantities, while the few forges and bloomaries making blooms from ore are found in New York and North Carolina, using the Catalan forge. Many forges, making blooms for boiler-plate from charcoal pig-iron, still exist in Pennsylvania. The following table shows the production of blooms from ore during late years:

Years.	Net tons.	Years.	Net tons.
1865.....	63,977	1870.....	62,220
1866.....	73,555	1871.....	63,000
1867.....	73,073	1872.....	52,000
1868.....	75,200	1873.....	62,354
1869.....	69,500	1874, (about).....	50,000

## PIG-IRON.

The first furnace in the United States, of which we have any knowledge, is that built by a London company, represented by John Winthrop, jr., at Hammersmith, Mass., in 1644.\* In Plymouth County, Massachusetts, Lambert Despard built a furnace in 1702 at the outlet of Mattakeeset Pond. In 1715 there were many furnaces in the colonies, all of which used charcoal for fuel. In 1717 pig-iron was exported to England. Most of these furnaces made castings, such as iron pots, direct from the furnace, as they still do in some parts of North Carolina and Tennessee. Coke was first used in the blast-furnace by F. H. Oliphant, of Fayette County, Pennsylvania, in 1836, and anthracite coal at Mauch Chunk, Carbon County, Pennsylvania, by Baughman, Giteau & Co., in July, 1839, though Mr. Lyman, at Pottsville, first succeeded in keeping a furnace in blast for three months on anthracite, running from October, 1839, to January, 1840. The Mauch Chunk furnace was small, being 21½ feet high and 5½ feet across the boosh, while the Pottsville furnace was 35 feet by 8½ feet. In August, 1846, the raw bituminous coal was first used in smelting iron at Lowellville, Mahoning County, Ohio, in a furnace specially built for raw coal, though, in 1845, a charcoal-furnace in Mercer County, Pennsylvania, (Clay Furnace,) had, during a scarcity of fuel, run a short time on raw coal alone. In 1810 there were 153 furnaces, all charcoal, which made in that year 54,000 net tons of pig-iron. In 1874 there were 701 furnaces, including charcoal, coke, raw coal, and anthracite, and 46 more were in course of construction. These figures do not include the large number of charcoal and other furnaces that have been abandoned. The following are statistics of production of pig-iron in net tons:

\* For a more detailed account of the 'Colonial industry in metals' see *Bishop's History of American Manufactures*, vol. 1, pages 465-631.

1810.....	54,000	1870.....	1,865,000
1823.....	130,000	1871.....	1,912,608
1840.....	315,000	1872.....	2,854,558
1849.....	650,000	1873.....	2,868,278
1860.....	919,770	1874.....	2,689,413
1865.....	931,582		

In 1874 there were produced 572,817 net tons of charcoal pig-iron; 884,872 tons of raw coal and coke; 1,202,144 anthracite, and 29,580 mixed fuel; total 2,689,413 net tons.

**RAILS.**—The first mills in this country which made railroad-iron were the Mount Savage Works, Maryland; Montour Iron-Works, Danville, Pa.; and the Great Western Works, Brady's Bend, Pa.; all of which were put in operation from 1840 to 1843. The Mount Savage Mill made rails of the shape of the letter U inverted, while the others made inverted T rails, of the present pattern. In 1850 there were 6 mills which made in that year 44,083 net tons of rails. In 1874 there were 58 mills, and 3 building. The following are statistics of rail-production, including steel rails, in net tons:

1860.....	205,038	1872.....	1,000,000
1870.....	620,000	1873.....	890,077
1871.....	775,733	1874, (about).....	750,000

**BAR-IRON, SHEET, PLATE, AND NAILS.**—Bar, sheet, and plate iron were first made in forges by the slow process of hammering. Plates were slit into rods, which were afterward cut up into nail-lengths, to be pointed and headed by hand. The first slitting-mill was built at Milton, Mass., in 1710.

From 1790 to 1810, rolling-mills gradually made their appearance, and in 1810 there were 330 forges and 34 rolling and slitting mills, which made 24,541 net tons of bar and plate iron, and 7,864 tons of nails. The first rolling-mill in Pittsburgh was built in 1812. In 1874 there were 335 rolling-mills making rails, bar, sheet, and plate iron, and nails. They made about 1,600,000 net tons of rolled iron, including Bessemer rails, and 215,000 tons of nails. The statistics of production are as follows, in net tons:

Year.	Blooms from ore.	Rails.	Other ham- mered or rolled iron.	Nails.	Total
1810.....			24,541	7,864	32,405
1830.....	8,194		90,768		98,962
1840.....			197,323		197,323
1845.....	30,000		291,600		321,600
1850.....		44,083	233,961		278,044
1856.....		142,555	355,596		498,051
1860.....		205,038			*205,038
1865.....	63,977	356,292	500,048		920,317
1870.....	62,259	620,000	705,000		1,387,259
1871.....	63,000	775,733	493,193	216,602	1,548,528
1872.....	58,000	1,000,000	738,796	203,266	1,999,992
1873.....	62,564	890,077	875,133	201,235	2,029,009
1874, (about).....	50,000	750,000	885,000	215,000	1,900,000

\* These figures are for rails alone; it is uncertain how much other iron was rolled in 1860.

**BESSEMER STEEL.**—The first Bessemer-steel works in America were built at Wyandotte, Michigan, in 1865. The ingot from which the first rail was made was taken to Chicago from Wyandotte and rolled into a rail at the North Chicago Rolling-Mill in 1865. In a short time afterward the "plant" was taken to Chicago from Wyandotte. The first rails made upon order were rolled at Johnstown, Pa., from ingots made at Harrisburgh, Pa., in 1867. There are now 8 Bessemer works in operation, 2 soon to be completed, and 1 about to be built: The following are statistics of production in net tons:

Year.	Total steel.	Steel rails.
1867.....	3,000	2,550
1868.....	8,500	7,225
1869.....	12,000	9,650
1870.....	40,000	34,000
1871.....	45,050	38,250
1872.....	110,500	94,070
1873.....	157,000	129,015
1874, (about).....	190,000	165,000

**STEEL, OTHER THAN BESSEMER.**—From the best information we have, we believe cast-steel was first made in this country during the decade 1830–40. Blister-steel was made very much earlier, dating far back into colonial times. In 1850 there were five cast-steel establishments; in 1860, thirteen; in 1870, twenty-seven; and in 1874 about forty. The following are statistics of production, including cast-steel, open-hearth, and blister-steel, in net tons:

1860.....	11,838	1872.....	38,000
1870.....	35,000	1873.....	50,000
1871.....	37,000	1874, (about) .....	50,000

**IMPORTATIONS.**—Until very recently, the United States has been a large purchaser of foreign iron and steel. So many new iron and steel making establishments were built in the period embraced in the years 1860 to 1874, that we are now, for the first time in the history of the country, in possession of complete facilities and full capacity to manufacture all the country needs of these articles, although it is probable that some special brands of iron and steel may continue to be imported for some time. The following table shows the quantity of leading iron and steel manufactures imported during a series of fiscal years in net tons, except steel ingots, &c., for which values only are given:

Fiscal years.	Iron rails.	Pig-iron.	Steel rails.	Steel ingots, bars, sheets, and wire.	Bar, boiler, band, hoop, sheet, and scroll.
Ended September 30—	Tons.	Tons.	Tons.		Tons.
1821.....		918		\$131,291	19,339
1830.....		1,159		351,442	42,409
1839.....		12,508		820,477	99,559
1840.....		5,516		544,674	63,429
Ended June 30—					
1850.....		74,874		1,414,022	20,152
1851.....		67,249		1,690,535	27,248
1852.....		91,874		1,801,186	26,122
1853.....		114,227		3,141,124	37,997
1854.....		160,483		2,669,945	29,269
1855.....	127,516	98,924		2,599,075	147,494
1856.....	155,496	59,012		2,543,215	140,168
1857.....	179,305	51,794		2,639,729	126,548
1858.....	75,745	41,965		1,154,673	93,637
1859.....	69,965	72,518		2,002,029	122,916
1860.....	122,174	71,498		2,735,818	175,506
1861.....	74,491	74,036		2,553,256	127,140
1862.....	8,611	22,247		1,469,374	11,226
1863.....	17,068	31,067		2,195,415	15,233
1864.....	118,714	102,223		2,398,156	123,240
1865.....	77,518	50,655		1,652,189	66,314
1866.....	73,510	101,261		1,992,562	81,712
1867.....	96,272	112,042		2,829,240	105,720
1868.....	151,087	112,133		2,252,383	70,228
1869.....	266,228	153,412		3,201,046	107,682
1870.....	313,328	171,677		2,342,468	160,329
1871.....	1513,023	199,515		3,750,702	126,263
1872.....	472,366	277,232	122,956	4,053,506	145,894
1873.....	240,505	241,355	160,041	4,155,234	107,234
1874.....	20,379	103,086	146,411	2,980,055	44,923

\*Quantity of bar-iron not given; value was \$2,733,074.

†Including some steel rails.

**EXPORTS.**—The exports of raw iron and steel have always been insignificant. In colonial times pig-iron and bar-iron were for many years, from 1717 to the Revolution, exported to England. In 1728–29, 1,127 gross tons of pig were thus exported; in 1732–33, 2,204 tons of pig and 11 of bar were exported; in 1745, 2,274 tons of pig and 196 of bar; in 1771, 5,303 tons of pig and 2,222 of bar, and 1776, 316 tons of pig and 28 of bar. Since the Revolution no iron has been exported until very recently; but iron and steel in various manufactured forms, such as agricultural and mechanical implements and edge-tools have for a long time been largely exported. The currency-values of exports of iron and steel, and manufactures thereof, in 1872 and 1873, were \$14,360,617 and \$16,687,754, respectively. The quantity of pig-iron exported was, in 1872, 1,319 net tons; in 1873, 9,022 net tons; in 1874, 14,321 net tons. Bar, plate, rails, and sheet-iron, in 1872, 1,554 net tons; in 1873, 820 net tons; in 1874, 5,521 net tons. Nails and spikes, in 1872, 2,682 net tons; in 1873, 3,400 net tons; in 1871, 5,138 net tons. Steel ingots, bars, sheets, and wire, in 1872, 8½ net tons; in 1873, 26 net tons; in 1874, 343 net tons. The years given are all calendar years.

The following statement of the aggregate value of the exports of iron and steel, and of the various manufactures thereof, for the last fifty-four years, will serve as a supplement to Mr. Swank's article, and show the gradual increase, from \$108,083 in 1821 to over twenty millions in 1871.

*Statement of the value of domestic iron and steel, and manufactures of, exported from the United States from 1821 to 1874 inclusive.*

Years.	Value.	Years.	Value.	Years.	Value.	Years.	Value.
1821.....	\$108,083	1835.....	\$297,357	1849.....	\$1,096,630	1863.....	\$6,475,279
1822.....	132,727	1836.....	308,666	1850.....	1,914,460	1864.....	7,283,166
1823.....	97,271	1837.....	494,908	1851.....	2,265,186	1865.....	10,786,559
1824.....	142,974	1838.....	712,192	1852.....	2,390,003	1866.....	*9,759,553
1825.....	156,173	1839.....	946,586	1853.....	2,509,304	1867.....	9,487,883
1826.....	253,895	1840.....	1,110,772	1854.....	4,216,947	1868.....	10,784,654
1827.....	275,671	1841.....	1,045,825	1855.....	3,768,301	1869.....	10,873,948
1828.....	233,618	1842.....	1,110,896	1856.....	4,190,096	1870.....	13,414,443
1829.....	226,537	1843.....	532,693	1857.....	4,906,491	1871.....	20,955,396
1830.....	309,473	1844.....	716,332	1858.....	4,737,094	1872.....	11,199,300
1831.....	239,271	1845.....	857,677	1859.....	5,506,890	1873.....	13,295,448
1832.....	230,588	1846.....	1,161,584	1860.....	5,712,990	1874.....	114,888,107
1833.....	243,603	1847.....	1,170,927	1861.....	5,932,587		
1834.....	236,577	1848.....	1,267,318	1862.....	4,563,301		

\* The original statement gives but \$3,759,553, but that is no doubt erroneous; the figures here given are approximately accurate.

† Not including \$4,482,503 of iron and steel manufactures exported to Canada, the value of which was obtained from Canadian authorities.

From and after the fiscal year 1821, the Reports on Commerce and Navigation, showing the imports and exports of the United States in detail, have been published. The trade-accounts previous to that year are very imperfect.

The following statement shows, with approximate accuracy, the exports of iron and manufactures of iron during the thirty years from 1791 to 1820, inclusive:

*Table showing the quantity or value of domestic iron and manufactures of iron exported from the United States for the years ended September 30, 1791 to 1820, inclusive.*

Years.	Pig.	Bar.	Castings	Manufactured.	Years.	Pig.	Bar.	Nails.	Castings.	Manufactured.
	<i>Tons.</i>	<i>Tons.</i>				<i>Tons.</i>	<i>Tons.</i>	<i>Pounds.</i>		
1791.....	4,179	350	\$2,598	\$3,500	1798.....	128	793		\$29,861	\$173,074
1792.....	3,268	360	3,202	8,000	1799.....	140	614		16,573	271,575
1793.....	2,082	763	12,900	10,250	1800.....	190	531		11,174	372,261
1794.....	2,037	843	2,681	24,304	1801.....	223	70		22,798	300,316
1795.....	1,046	2,444	3,500	25,600	1802.....	535	100		21,106	317,925
1796.....	502	843	453	160,094	1803.....	877	177	77,551	5,923	21,261
1797.....	597	904	22,901	135,594	1804.....	454	379	110,760	9,168	40,837

Years.	Pig.	Bar.	Nails.	Castings.	Manufactured.	Years.	Pig.	Bar.	Nails.	Castings.	Manufactured.
	<i>Tons.</i>	<i>Tons.</i>	<i>Pounds.</i>				<i>Tons.</i>	<i>Tons.</i>	<i>Pounds.</i>		
1805.....	385	927	278,051	\$25,821	\$40,559	1813.....			14,369	\$19,621	\$812
1806.....	79	307	218,805	47,041	29,700	1814.....			42,763	5,19	6,581
1807.....	114	132	336,321	55,394	41,239	1815.....	152	80	90,294	5,749	7,784
1808.....	9	67	30,237	4,161	5,899	1816.....	15	36	158,877	14,649	161,394
1809.....	70	277	272,793	5,595	30,461	1817.....	200	22	473,025	32,782	45,942
1810.....	93	429	377,373	9,410	39,293	1818.....		\$3,224	\$21,358	14,963	33,426
1811.....	21	217	347,925	8,143	21,454	1819.....	\$250	\$169	\$14,686	10,638	28,407
1812.....	63	62,785	1,750	36,316		1820.....		\$2,835	\$13,509	3,484	36,675

NOTE.—From 1791 to 1803 the returns do not separate foreign and domestic articles exported, but the great bulk of iron exported was undoubtedly of domestic manufacture.

From Pitkin's Statistical View of Commerce, it appears that there were exported in the year 1770 from the British continental colonies 6,017 tons of pig, 24,064 tons of bar, 2 tons of castings, and 8 tons of wrought iron, valued at \$145,628, \$173,891, \$158, and \$210, respectively



## IRON-ROLLING MILLS.

Table showing the average weekly earnings of workmen employed in the Iron-Rolling Mills of Massachusetts and the Middle States (with the prices per ton) in the year 1874.

Occupation.	Massachusetts.		New York.		New Jersey.		Pennsylvania.		Delaware.		Average in Middle States.	
	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.
Puddlers.....	\$22 56	\$4 25	\$23 65	\$3 97	\$17 19	\$5 03	\$21 15	\$5 23	\$18 00	\$5 25	\$19 75	\$4 37
Puddlers' helpers.....	11 40	40	10 56	1 60	10 31		11 09		10 36	1 67	10 56	1 64
Shinglers.....					18 00		17 97				17 63	1 96
Shinglers' helpers.....					10 00		8 81	96			9 40	
Fiddle-mill roller.....	14 25		21 60	13½			16 96	44	11 83	64	15 93	34½
Top and bottom roller.....	18 00		30 15	11½	14 04	17	27 50	06 45			28 53	9½
Forge-rollers.....			25 20	14	10 00				26 00	74	17 69	14
Merchant-mill rollers.....	20 00		27 33	73	33 00		36 83	51			30 79	66
Rail-mill rollers.....	18 00		45 96	11½	30 00	18½	40 00	10 1-10	30 00		38 65	11
Sheet and plate rollers.....			35 10		17 93	16½	16 11				24 79	18½
Second rollers.....			25 00		15 39						20 30	16½
Third rollers.....			16 00								18 00	
Furnace-men's or heaters' helpers.....	10 63		11 85	30	8 40	30	14 29	36½	12 00	40	11 64	35
Shear-men.....	9 30		9 45		9 76		13 67		10 00		10 78	
Billers.....	9 00						7 50		7 00		7 25	
Catchers.....	8 25		27 15	06½	13 03	14½	17 94	19	10 17	05	16 63	13½
Roughers.....	17 00		26 83	06 2-10	13 00		20 18	06 1-10	17 50	95	19 13	54
Heaters.....	27 13		28 06	57	16 80	60	24 59	64	24 67		23 54	66½
Foremen or superintendents.....	23 25		30 00		21 01		27 29		21 00		24 83	
Mechanists.....	17 25		15 08		14 23		15 56		14 00		14 70	
Engineers.....	15 00		15 03		13 73		15 94		13 67		13 91	
Carpenters.....	19 00		15 00		15 00		14 25		13 50		14 44	
Blacksmiths.....	15 25		15 00		7 86		13 49		11 33		13 93	
Blacksmiths' helpers.....	9 38		9 00		7 80		8 53		7 87		8 31	
Labors and unskilled workmen.....	9 00		9 50		6 90		10 79		6 43		9 41	
Treasurers.....	9 00		4 50		4 20		4 50		4 67		4 47	
Apprentices and boys.....	4 75											
Hours of labor.....	54		60		60		60		60		60	

## IRON-ROLLING MILLS.

Table showing the average weekly earnings of workmen employed in the Iron-Rolling Mills in the following Western States in the year 1874.

Occupation.	Ohio.		Illinois.		Indiana.		Kansas.		Average in preceding Western States.	
	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.
Puddlers.....	\$24 30	\$6 25	\$24 80	\$5 21	\$28 50	\$6 50			\$25 87	\$5 88½
Puddlers' helpers.....	11 92		13 85	3 08	14 35				13 34	3 06
Shinglers.....			30 00						30 00	
Shinglers' helpers.....			12 00						12 00	
Puddle-mill roller.....			25 70	18 2-10	21 60	90			24 32	61 2-5
Top and bottom roller.....	25 65	76	30 58	08 4-10					30 38	08 4-10
Forge rollers.....	18 00								18 00	
Merchant-mill rollers.....	48 00								48 00	
Rail-mill rollers.....			49 55	12 9-10			\$24 50	\$0 07	37 03	10
Sheet and plate rollers.....	37 50	60							37 00	60
Second rollers.....			28 05	07 7-10					28 05	07 7-10
Third rollers.....										
Furnace-men or heater's helpers.....	12 02		16 28	17			14 00	25	14 10	21
Shearmen.....	20 25		14 72	12 8-10			12 00		15 06	12 8-10
Billeters.....										
Catchers.....	16 81		22 57	09 8-10			25 00	07	21 46	08 4-10
Roughers.....	16 50		26 00	10 4-10			28 00	06	23 50	08 2-10
Heaters.....	30 00	76	40 23	52 8-10			32 00	68	34 08	65 3-5
Foremen or superintendents.....	37 50		45 17		25 00		28 00		23 02	
Machinists.....	19 50		23 70		24 00		21 00		22 05	
Engineers.....	18 00		19 47		18 00		21 00		19 35	
Carpenters.....	18 00		19 60		16 00		21 00		18 65	
Blacksmiths.....	18 63		24 37		10 80		21 00		16 80	
Laborers and unskilled workmen.....	10 25		10 33				9 00		9 86	
Teamsters.....	11 25		12 60		10 00				11 38	
Apprentices and boys.....	4 50		4 87				3 00		4 13	
Hours of labor.....	57		60		54		60		57½	

## IRON-ROLLING MILLS.

Table showing the average weekly earnings of workmen employed in the Iron-Rolling Mills in the following States in the year 1874; also the general average of the United States.

Occupation.	California.		Tennessee.		Kentucky.		Average in two Southern States.		General average.	
	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.	Per week.	Per ton.
Puddlers.....	\$48 00	\$7 00	\$30 00	\$6 50	\$32 00	.....	\$38 00	.....	\$38 44	\$5 73
Puddlers' helpers.....	.....	.....	12 00	.....	12 00	.....	12 00	.....	11 83	1 37½
Slingers.....	18 00	.....	18 00	.....	.....	.....	18 00	.....	20 91	1 96
Slingers' helpers.....	.....	.....	.....	.....	.....	.....	.....	.....	10 70	.....
Puddle-mill roller.....	18 00	.....	.....	.....	.....	.....	.....	.....	18 50	48
Top and bottom roller.....	39 00	13½	.....	.....	30 00	.....	30 00	.....	29 10	10
Forge-rollers.....	.....	.....	.....	.....	.....	.....	.....	.....	29 10	14
Merchant-mill rollers.....	40 50	43	30 00	.....	40 00	.....	35 00	.....	17 80	14
Rail-mill rollers.....	42 00	14	.....	.....	.....	.....	.....	.....	34 86	53½
Sheet and plate rollers.....	.....	.....	.....	.....	24 00	.....	24 00	.....	33 93	11½
Second rollers.....	.....	.....	.....	.....	.....	.....	.....	.....	28 10	39½
Third rollers.....	.....	.....	.....	.....	.....	.....	.....	.....	24 13	12 1-10
Furnace-men or heaters' helpers.....	.....	.....	15 00	.....	12 00	.....	13 50	.....	18 00	.....
Blowers.....	.....	.....	15 00	.....	15 00	.....	15 00	.....	19 47	68
Billers.....	.....	.....	13 00	.....	9 00	.....	10 50	.....	19 67	12 4-5
Catchers.....	17 10	19	15 00	.....	12 00	.....	13 50	.....	15 43	12½
Boys.....	31 50	23	18 00	.....	14 00	.....	15 00	.....	21 83	16½
Heaters.....	32 80	80	35 00	.....	25 00	.....	30 00	.....	29 51	70 7-10
Foremen or superintendents.....	.....	.....	40 00	.....	35 00	.....	35 00	.....	29 45	.....
Mechanics.....	21 00	.....	18 00	.....	13 50	.....	13 75	.....	14 15	.....
Engineers.....	19 50	.....	18 00	.....	18 00	.....	18 00	.....	17 15	.....
Carpenters.....	31 00	.....	15 00	.....	18 00	.....	13 50	.....	17 38	.....
Blacksmiths.....	21 00	.....	19 25	.....	18 00	.....	18 63	.....	17 40	.....
Laborers and unskilled workmen.....	13 00	.....	7 50	.....	8 40	.....	7 95	.....	9 50	.....
Teamsters.....	.....	.....	9 00	.....	.....	.....	9 00	.....	9 67	.....
Apprentices and boys.....	7 50	.....	3 50	.....	3 00	.....	3 25	.....	4 68	.....
Hours of labor.....	.....	.....	59	.....	60	.....	59½	.....	57 13-16	.....

## IRON-FOUNDRIES AND MACHINE-SHOPS.

Average rates of weekly wages paid in the Iron-Foundries and Machine-Shops in the New England States in the respective years 1869 and 1874.

Occupation.	Maine.		New Hampshire.		Vermont.		Massachusetts.		Rhode Island.		Connecticut.		Average in New England States.	
	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.
Iron-molders .....	\$19 84	\$13 27	\$17 00	\$14 64	\$13 50	\$15 00	\$16 50	\$15 00	\$19 86	\$31 00	\$20 70	\$15 25	\$16 73	\$15 69
Machinists, (best) .....	14 27	15 43	15 50	16 05	15 00	15 00	19 70	17 50	18 80	17 97	19 50	18 00	17 13	16 66
Machinists, (ordinary) .....	12 90	11 44	11 86	13 48	12 00	13 00	14 77	14 75	16 50	14 52	16 50	15 50	13 92	13 45
Machinists, (inferior) .....	6 00	8 20	9 33	11 00	9 00	10 00	11 40	11 58	15 60	13 00	12 00	14 00	10 86	10 96
Machinists, (helpers) .....	10 50	9 30	7 84	8 39	8 25	9 25	10 25	9 81	9 00	8 83	9 00	10 25	9 16	9 16
Boiler-makers .....	16 50	16 50	16 50	16 50	16 50	16 50	13 60	15 75	36 25	17 40	17 40	15 50	31 25	31 25
Helpers .....	6 00	5 00	10 00	10 00	10 00	10 00	9 75	10 25	9 50	10 50	10 50	8 75	8 75	8 69
Riveters .....	16 50	16 50	16 50	16 50	16 50	16 50	14 00	13 00	15 00	16 50	16 50	15 25	15 00	15 00
Flangers .....	18 00	18 00	18 00	18 00	18 00	18 00	10 60	10 00	10 50	10 50	10 50	10 50	10 63	10 63
Blacksmiths .....	15 00	13 07	16 50	15 17	16 50	15 00	15 00	16 25	24 00	21 00	21 00	18 00	20 00	20 00
Helpers .....	30 00	19 60	11 25	9 38	12 00	9 00	10 45	10 17	9 00	11 19	10 50	10 50	10 64	10 21
Foremen .....	14 25	14 85	19 60	23 29	18 00	18 00	26 34	23 62	23 12	23 25	23 70	25 00	21 77	23 16
Pattern-makers and carpenters .....	13 81	13 81	15 70	13 50	16 50	15 00	15 00	14 68	16 50	13 40	13 50	15 00	14 25	14 43
Assistants .....	10 50	9 43	15 50	11 00	15 00	15 00	13 04	17 14	16 50	18 00	18 50	19 13	16 87	16 81
Laborers, carriers .....	6 00	6 00	5 00	6 13	6 00	6 00	5 89	6 60	9 00	10 00	12 00	13 00	13 00	11 47
Apprentices .....	31 00	31 00	18 00	16 00	16 50	16 50	15 00	16 50	16 00	16 00	16 50	16 50	16 50	16 50
Millwrights .....	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50
Assistants .....	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50
Brass-founders .....	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50
Fitters .....	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50
Turners .....	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50	16 50
Hours of labor per week .....	59	59	60	60	60	60	59	59	59	59	58	58	59	59

## IRON-FOUNDRIES AND MACHINE-SHOPS.

Average rates of wages paid in the Iron-Foundries and Machine-Shops in the Middle States in the respective years 1869 and 1874.

Occupation.	New York.		New Jersey.		Pennsylvania.		Delaware.		Maryland.		Average in Middle States.	
	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.
Iron-molders.....	\$16 50	\$15 83	\$17 75	\$16 50	\$17 25	\$14 00	\$14 50	\$14 00	\$13 50	\$14 50	\$15 90	\$14 98
Machinists, (best).....	17 55	16 06	18 18	14 81	16 80	15 41	15 50	16 25	15 00	17 25	16 54	16 24
Machinists, (ordinary).....	15 00	12 93	14 81	14 81	14 55	12 71	13 50	14 00	10 00	17 25	16 54	16 24
Machinists, (inferior).....	10 12	10 28	13 13	13 13	11 89	10 43	10 63	11 00	10 00	14 70	13 37	13 50
Machinists, (helpers).....	9 00	7 65	10 46	10 46	10 18	9 02	8 75	8 00	.....	11 50	11 44	10 80
Boiler-makers.....	14 81	15 00	15 48	15 48	15 00	16 00	15 00	15 00	.....	9 00	9 59	8 82
Helpers.....	9 37	9 30	9 84	9 84	11 00	8 98	8 50	8 50	.....	15 75	15 07	15 44
Riveters.....	14 25	15 00	12 75	12 75	13 00	15 50	14 00	14 50	.....	9 50	9 67	9 05
Holders-on.....	9 37	9 00	9 87	9 87	9 00	9 88	9 00	9 00	.....	13 50	13 50	14 63
Flangers.....	16 12	15 00	.....	.....	.....	17 00	18 00	17 50	.....	16 50	17 06	16 50
Helpers.....	9 00	9 60	.....	.....	.....	10 33	10 00	8 75	.....	9 00	9 50	9 42
Blacksmiths.....	16 12	15 75	16 97	10 58	14 15	15 38	15 06	14 00	15 00	14 50	15 46	14 91
Helpers.....	9 15	9 33	9 65	8 96	9 65	8 96	8 66	7 75	.....	9 50	9 92	8 86
Foremen.....	20 06	24 25	24 09	24 09	21 33	22 87	25 00	24 50	19 00	22 75	21 86	23 13
Engineers.....	12 50	13 85	13 00	13 00	12 51	14 31	11 75	12 00	6 00	12 00	11 53	13 04
Pattern-makers and carpenters.....	17 25	15 90	18 06	18 06	14 92	14 09	15 00	14 00	15 00	15 00	16 16	14 90
Assistants.....	9 00	12 00	.....	.....	9 39	11 38	6 00	8 50	.....	12 00	8 00	10 97
Laborers, carters.....	9 00	8 81	10 55	12 00	9 39	9 59	8 50	7 75	9 00	9 30	9 41	9 49
Apprentices.....	4 50	5 41	5 25	.....	4 67	5 35	4 33	4 00	4 00	4 25	4 68	4 75
Milwrights.....	18 00	.....	.....	.....	.....	16 82	15 00	14 50	.....	18 00	16 50	16 37
Assistants.....	.....	.....	.....	.....	.....	8 95	8 00	7 75	.....	.....	8 00	8 00
Brass-founders.....	21 00	.....	.....	.....	.....	13 28	17 00	14 00	.....	.....	19 80	13 64
Fitters.....	.....	.....	15 00	15 00	14 50	14 57	16 00	14 00	.....	.....	15 25	14 52
Turners.....	.....	.....	.....	.....	.....	19 81	13 00	14 00	.....	.....	13 00	18 40
Hours of labor per week.....	60	60	59	59	59	59	60	60	60	60	59 35	59 35

IRON-FOUNDRIES AND MACHINE-SHOPS.  
*Average rates of weekly wages paid in the Iron-Foundries and Machine-Shops in the Western States in the respective years 1869 and 1874.*

Occupation.	Ohio.		Indiana.		Illinois.		Michigan.		Minnesota.		Wiscon- sin.	Iowa.	Missouri.	Average in West- ern States.	
	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1869.	1874.	1874.
Iron-molders.....	\$16 47	\$13 10	\$15 00	\$14 79	\$18 00	\$17 34	\$16 50	\$15 00	\$16 00	\$16 50	\$14 66	\$14 25	\$18 59	\$16 37	\$15 16
Machinists, (best).....	18 04	15 38	15 00	16 33	18 50	17 53	18 50	18 00	18 00	18 90	18 67	15 75	18 66	17 62	16 98
Machinists, (ordinary).....	14 30	11 08	11 00	13 26	14 50	13 98	12 33	15 00	15 50	16 50	14 97	11 25	15 33	13 76	13 51
Machinists, (inferior).....	10 59	6 67	10 00	12 00	13 00	11 90	6 00	9 00	9 00	13 68	11 50	6 75	12 00	10 14	10 10
Machinists, (helpers).....	10 42	9 50	9 00	9 30	9 00	9 31	9 00	9 00	9 00	13 68	9 70	7 00	10 66	9 46	9 35
Boilermakers.....	17 50	15 00	16 02	16 92	17 30	17 30	18 00	18 75	18 00	18 75	18 00	18 00	17 75	17 01	17 01
Helpers.....	10 72	9 40	11 50	11 50	11 50	11 50	12 00	11 25	12 00	11 25	11 36	12 00	11 04	11 36	11 04
Riveters.....	16 35	13 25	18 00	17 40	18 00	18 00	19 50	19 25	18 75	15 63	16 35	15 63	16 35	15 63	15 63
Holders-on.....	12 75	7 49	16 80	21 75	17 40	21 75	19 50	19 25	18 75	15 63	16 35	15 63	16 35	15 63	15 63
Flangers.....	18 00	9 00	11 70	14 25	15 39	14 25	18 00	13 00	13 00	19 00	17 50	18 00	17 43	16 37	16 37
Helpers.....	9 48	8 88	9 00	8 83	11 12	10 41	9 75	9 75	11 00	12 00	10 84	10 19	10 34	10 19	10 06
Blacksmiths.....	17 63	14 25	17 50	15 75	15 75	15 39	14 25	9 75	11 00	12 00	10 84	10 19	10 34	10 19	10 06
Helpers.....	10 33	8 88	9 00	8 83	11 12	10 41	9 75	9 75	11 00	12 00	10 84	10 19	10 34	10 19	10 06
Foremen.....	43 59	23 67	22 48	21 50	21 50	24 60	23 50	21 75	21 50	23 50	21 50	28 00	27 63	23 34	23 78
Engineers.....	13 61	11 05	10 33	14 00	14 00	14 00	19 00	16 50	16 50	18 00	14 98	12 00	16 81	14 71	12 65
Pattern-makers and carpenters.....	16 64	14 67	14 25	16 79	15 37	17 61	17 50	16 50	18 00	18 38	14 98	16 50	19 71	16 53	16 74
Helpers.....	15 50	9 90	9 37	10 38	9 37	10 38	9 75	9 00	9 00	18 38	14 98	16 50	19 71	16 53	16 74
Assistants.....	10 34	8 33	8 63	10 46	10 46	10 46	10 50	9 75	9 00	18 38	14 98	16 50	19 71	16 53	16 74
Laborers, carters.....	4 97	5 50	4 67	6 64	7 00	6 64	4 00	9 75	9 00	18 38	14 98	16 50	19 71	16 53	16 74
Apprentices.....	21 00	21 00	25 00	17 25	17 25	17 25	10 50	9 75	9 00	18 38	14 98	16 50	19 71	16 53	16 74
Millwrights.....	18 00	18 00	18 00	13 50	13 50	13 50	24 00	24 00	24 00	18 00	18 00	15 50	18 00	15 50	15 00
Assistants.....	12 00	12 00	18 00	13 50	13 50	13 50	19 50	19 50	19 50	18 00	18 00	15 50	18 00	15 50	15 00
Brass-founders.....	19 00	19 00	19 00	15 00	15 00	15 00	19 50	19 50	19 50	18 00	18 00	15 50	18 00	15 50	15 00
Fitters.....	19 00	19 00	19 00	15 00	15 00	15 00	19 50	19 50	19 50	18 00	18 00	15 50	18 00	15 50	15 00
Turners.....	19 00	19 00	19 00	15 00	15 00	15 00	19 50	19 50	19 50	18 00	18 00	15 50	18 00	15 50	15 00
Hours of labor per week.....	60	60	60	60	60	58	60	60	57	57	60	60	59 1-6	59 1-6	59 1-6

## IRON-FOUNDRIES AND MACHINE-SHOPS.

*Average rate of weekly wages paid in the Iron-Foundries and Machine-Shops in the Southern and Pacific States in the year 1874, and the general average in the United States.*

Occupation.	Virginia.	West Virginia.	Kentucky.	Tennessee.	North Carolina.	Georgia.	Alabama.	Louisiana.	Arkansas.	Texas.	Average in Southern States.	California.	Oregon.	Nevada.	Montana.	Average in Pacific States.	General Average of United States.
Iron-molders	\$17.00	\$13.25	\$20.75	\$21.00	\$15.50	\$16.50	\$15.88	\$18.00	\$21.00	\$20.50	\$17.88	\$24.00	\$24.00	\$24.00	\$24.00	\$31.50	\$19.04
Machinists, (best)	17.00	17.00	20.25	18.75	15.00	19.75	13.50	18.00	21.00	22.50	19.50	24.00	27.00	40.00	36.00	34.00	29.13
Machinists, (ordinary)	13.50	11.00	15.00	12.75	15.00	14.75	13.50	15.00	16.00	12.50	14.19	22.50	24.00	36.00	30.00	27.12	16.37
Machinists, (inferior)	8.25	9.00	12.75	10.00	15.00	15.00	10.00	12.00	12.00	10.00	11.00	19.50	18.00	28.00	18.00	18.50	12.27
Machinists, (helpers)	7.00	8.17	10.00	7.75	15.00	16.00	6.13	6.00	12.00	14.00	8.34	14.00	15.00	28.00	18.00	14.75	10.20
Boiler-makers	16.50	15.00	19.50	18.00	15.00	24.00	17.00	18.50	15.00	26.55	19.42	21.75	24.00	33.00	35.25	35.25	19.47
Helpers	9.75	13.00	15.00	9.75	15.00	13.00	6.25	6.00	18.00	15.00	8.96	13.75	15.00	24.00	17.25	17.25	11.00
Riveters	10.50	10.00	15.00	15.00	15.00	13.00	6.00	6.00	18.00	21.00	16.17	21.75	24.00	29.00	24.58	24.58	17.50
Holders-on	21.00	12.00	19.50	24.00	12.00	13.00	6.00	18.00	18.00	24.00	19.07	24.00	27.00	21.00	18.00	18.00	31.99
Flangers	10.50	9.00	10.00	7.00	12.00	13.00	6.00	12.00	21.00	15.00	9.93	13.00	15.00	49.00	34.00	15.00	10.82
Helpers	10.50	14.25	16.50	19.50	12.00	13.00	15.25	19.50	21.00	25.00	17.45	33.50	27.00	49.00	34.00	30.88	19.25
Blacksmiths	8.17	9.00	9.25	7.00	7.00	6.38	6.25	12.50	12.00	14.58	19.22	14.50	15.00	27.00	18.00	14.63	11.41
Helpers	19.50	22.60	25.00	27.50	13.50	14.00	28.00	33.00	30.00	30.00	26.85	37.33	33.00	56.00	45.00	42.81	27.75
Engineers	18.00	13.33	9.75	13.50	13.50	17.00	15.75	19.50	16.50	18.00	16.34	19.33	21.00	27.00	25.00	23.77	16.05
Pattern-makers and carpenters	15.75	16.50	16.75	18.00	13.50	17.00	15.75	19.50	16.50	24.00	17.32	23.75	21.00	42.00	36.00	31.43	19.40
Assistants	8.00	18.00	9.50	8.25	6.00	12.00	12.00	13.00	10.50	12.75	8.02	16.50	15.00	35.00	18.00	25.75	13.76
Laborers carters, &c.	6.00	8.50	9.50	7.00	6.00	6.00	5.50	11.50	7.50	12.75	8.02	12.75	15.00	18.00	18.00	18.44	10.98
Apprentices	4.85	5.00	5.00	3.00	6.00	5.00	5.00	5.00	5.00	5.00	5.00	7.75	9.10	22.00	12.92	12.92	6.188
Millwrights	20.00	30.00	20.00	30.00	20.00	24.00	18.75	18.00	18.00	27.00	22.96	30.00	30.00	42.00	36.00	36.00	22.58
Assistants	15.00	20.00	19.50	20.00	20.00	12.00	12.50	12.00	18.00	18.00	15.40	19.50	19.50	42.00	19.50	19.50	14.48
Brass-founders	13.50	18.00	19.50	20.00	18.00	18.00	12.50	18.00	18.00	21.00	17.17	24.00	24.00	42.00	33.00	33.00	19.31
Fitters	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	17.00	24.00	24.00	40.00	35.77	35.77	14.12
Turners	18.00	12.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	18.00	17.00	24.00	21.00	40.00	31.31	31.31	17.98
Hours of labor per week	60	58	60	54	60	59	55	59	60	60	54	60	60	60	63	60	59.3.10

## MISCELLANEOUS IRON AND STEEL MANUFACTURES.

Table showing the average weekly wages of persons employed in iron and steel works in Pittsburgh, Pa., in the year 1874.

[Average hours of labor per week, 54.]

Average number employed.	Occupation.	Wages.	Average number employed.	Occupation.	Wages.
IRON-WORKS.			IRON-WORKS—Continued.		
	Manager .....	\$28 00	2	Catchers .....	\$14 70
1	Shipping-clerk .....	15 00	2	Roughers-up .....	15 00
1	Mill-clerk .....	23 00	4	Straighteners .....	4 80
1	Weigh-master .....	6 00	2	Shearmen .....	10 00
1	Forge-carpenter .....	21 10	2	Bundlers .....	10 50
2	Blacksmiths .....	15 75	2	Heaters .....	23 00
4	Night-watchmen .....	12 75	2	Stockers .....	9 30
1	Master-engineer .....	28 00	2	Druggers-down .....	10 00
3	Assistant engineers .....	15 00			
1	Machinist .....	21 00	STEEL-WORKS.		
6	Steel-shear-men .....	13 50	1	Converter .....	12 00
70	Common laborers .....	8 40	1	Helper .....	9 00
2	Core-stokers .....	11 25	2	Breakers .....	9 00
4	Aah-wheelers .....	10 50	3	Scrap-shearers .....	7 50
3	Metal-stockers .....	19 25	2	Steel-melters .....	63 00
44	Boilers, (puddlers) .....	20 35	8	Helpers .....	15 75
44	Helpers .....	12 60	1	Gas-producer .....	15 75
2	Muck-rollers .....	30 25	1	Ingot-inspector .....	10 00
2	Roughers-down .....	14 00	1	Weigher .....	10 00
2	Catchers .....	12 90	2	Cogging-hammer men .....	30 00
2	Helpers .....	12 90	2	Helpers .....	12 00
2	Hookers-up .....	8 25	2	Heaters .....	15 00
2	Druggers-out .....	13 75	1	Engineer .....	9 00
2	Welders .....	22 00	1	Finishing-hammer man .....	42 00
2	Shear-men .....	10 50	1	Helper .....	15 00
1	Bar-roller .....	39 00	2	Inspectors .....	12 00
2	Bar-roller heaters .....	29 00	1	Manager .....	20 00
1	Rougher .....	19 50			
1	Catcher .....	22 00	STEEL-MILLS.		
1	Helper .....	14 40	2	Stockers .....	10 00
1	Hooker-up .....	10 00	2	Heaters .....	18 00
1	Stocker .....	11 10	2	Helpers .....	10 50
1	Dragger-down .....	11 10	2	Rollers .....	44 00
2	Pullers-up .....	2 70	2	Helpers .....	10 50
2	Straighteners .....	11 10	2	Catchers .....	18 50
2	Shear-men .....	10 50	2	Helpers .....	10 50
1	Weigher .....	12 60	2	Heaters-up .....	9 00
2	Guide-mill rollers .....	30 00	4	Straighteners .....	11 50
2	Roughers-down .....	15 60	1	Shear-man .....	18 00

Table showing the average weekly wages of persons employed in steel-works in Pittsburgh, Pa., in the year 1872.

[Hours of labor per week, 60.]

Average number employed.	Occupation.	Wages.	Average number employed.	Occupation.	Wages.
12	Steel-melters .....	\$47 83	4	Engineer .....	\$24 00
36	Helpers .....	17 55	1	Engineer's helpers .....	13 87
1	Machinist, best .....	18 00	1	Converter .....	24 00
1	Machinist, ordinary .....	15 00	1	Pattern-maker and carpenter .....	18 00
1	Machinist, inferior .....	10 75	3	Assistants .....	14 88
6	Puddlers .....	34 33	130	Laborers, carters, &c., (men) .....	11 53
6	Puddlers' helpers .....	22 00	25	Apprentices, (boys) .....	5 00
8	Rollers .....	43 75	2	Gas-makers .....	19 00
10	Heaters .....	33 00	4	Inspectors .....	12 00
35	Rollers' helpers .....	27 50	4	Shear-men .....	18 00
10	Hammer-men .....	36 80	1	Millwright .....	24 00
23	Hammer-men's helpers, (men and boys) .....	29 18	2	Assistants .....	18 00
1	Blacksmith .....	19 50	1	Roll-turner .....	22 00
3	Blacksmiths' helpers .....	10 50	1	Roll-turner's helper, (boy) .....	10 00



*Table showing the average weekly wages of persons employed in the Neutral Foundry (forge and Bessemer pig-iron) in Harrisburgh, Pa.*

Occupation.	Wages.	Occupation.	Wages.
Clerk .....	\$12 00	Keepers' helpers .....	\$10 00
Foreman or founder .....	28 00	Fillers and cinder-men .....	9 45
Engineer .....	17 36	Iron-weigher .....	10 15
Engineer's assistant .....	11 97	Carters .....	7 56
Blacksmith .....	12 18	Laborers .....	7 32
Carpenter .....	12 18	Conductors on ore-trains .....	9 74
Keepers .....	11 97		

NOTE.—All the above wages, except clerk's, blacksmith's, carpenter's, and conductors', are calculated at 7 days per week, which furnacemen usually make. The exceptions are calculated at 6 days per week.

*Table showing the average weekly wages of persons employed by the Corrugated Iron Company of Chicago, Ill.*

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Iron-shutter makers .....	\$18 00	Apprentices or boys .....	\$5 00
Engineers .....	18 00	Foremen or overseers .....	18 00
Laborers or unskilled workmen .....	9 00		

*Table showing the average weekly wages of persons employed in malleable iron-fittings works in Branford, Conn.*

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Iron-molders, including apprentices .....	\$13 00	Foremen .....	\$19 00
Machinists, best .....	19 25	Engineers .....	13 50
Machinists, ordinary .....	15 00	Pattern-makers and carpenters .....	18 00
Machinists, inferior, attending tapping-machines .....	11 00	Assistants .....	13 00
Boys .....	4 50	Laborers, carters, &c. ....	9 00
		Boys and girls, making cores .....	5 00

### HARDWARE MANUFACTORIES.

*Table showing the average weekly wages of persons employed in hardware-manufactories in Connecticut in the years 1872 and 1874.*

Occupation.	Wages in—		Occupation.	Wages in—	
	1872.	1874.		1872.	1874.
Molders, iron .....	\$13 75	\$15 00	Press-workmen .....	.....	\$12 00
Apprentices .....	9 00	.....	Rollers .....	.....	16 50
Molders, brass .....	.....	18 00	Welders .....	.....	15 00
Cupola-tenders .....	.....	12 00	Joiners .....	.....	13 50
Annealing-furnace tenders .....	.....	12 00	Stampers .....	.....	11 25
Fillers .....	.....	9 75	Gradinators .....	.....	15 00
Japanners .....	.....	13 50	Finishers .....	\$13 60	12 00
Forgers .....	.....	18 00	Pattern-makers .....	20 83	24 00
Helpers .....	.....	11 00	Carpenters .....	.....	15 00
Grinders .....	.....	11 00	Trip-hammer men .....	.....	18 00
Polishers .....	.....	13 50	Fitters-up .....	.....	12 00
Turners .....	.....	12 00	Screw-cutters .....	.....	15 00
Machinists, (best) .....	21 75	18 66	Blacksmiths .....	17 25	15 00
Machinists, (ordinary) .....	15 00	.....	Helpers .....	12 00	9 75
Engineers .....	15 75	13 66	Foremen .....	*18 00	19 00
Furnace-men .....	.....	13 50	Apprentices or boys .....	5 78	6 00
Laborers and carters .....	10 00	9 00	Girls and women .....	5 67	4 50
Packers .....	13 73	13 50	Brass-founders .....	15 43	.....
Die-makers .....	.....	18 00	Turners .....	11 10	.....

\* And upward.

*Table showing the average weekly earnings of persons employed on brass and tinners' hardware in Meriden, Conn.*

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Machinists .....	\$21 00	Engineer and helper .....	\$37 50
Drop-men .....	15 00	Spelter-casters .....	20 00
Press-men .....	18 00	Men in rolling-mill .....	12 00
Press-girls .....	7 50	Foremen of rooms .....	27 00
Solderers, (girls) .....	7 50	Superintendent .....	40 00
Ordinary-work girls .....	6 00	Die-sinkers .....	33 00

*Table showing the average weekly wages of persons employed in iron and brass works in Chicago, Ill.*

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Blacksmiths .....	\$18 24	Painters .....	\$14 70
Cabinet-makers .....	17 64	Pattern-makers .....	16 50
Carpenters .....	16 74	Steam-fitters .....	17 34
Finishers, brass .....	14 64	Welders, pipe .....	14 76
Machinists .....	16 32	Engineers .....	18 72
Masons .....	18 66	Laborers .....	10 44
Molders, gray-iron .....	17 54	Apprentices .....	5 40
Molders, malleable-iron .....	12 12	Foremen .....	25 80
Millwrights .....	21 78		

*Table showing the average weekly wages of persons employed in the umbrella-frame manufactory in New York City.*

[Hours of labor per week, 59.]

Occupation.	Wages.	Occupation.	Wages.
Machinists .....	\$21 00	Grinders .....	\$5 00
Stretchers-hands .....	6 00	Frame-makers .....	12 00
Molders .....	20 00	Japanners .....	9 00
Banners and notchers .....	18 00	Packers .....	10 00
Cap and ferrule makers .....	15 00	Labelers .....	5 00
Rib-makers .....	5 00	Engineers .....	25 00
Punchers and rippers .....	5 00	Laborers .....	14 00
Hardeners .....	6 00	Apprentices .....	7 00
Temperers .....	6 00	Foremen .....	35 00
Springers and testers .....	5 00	Watchmen and carmen .....	15 00
Lappers .....	7 00	Book-keeper .....	25 00
Drillers .....	6 00		

*Table showing the average weekly wages of persons employed in corset-steel works in New Haven, Conn.*

Average number employed.	Occupation.	Wages.	Average number employed.	Occupation.	Wages.
1	Overseer .....	\$30 00	1	Japan-carrier .....	\$12 00
1	Assistant .....	9 00	5	Japan-dippers .....	4 50
2	Steel-temperers .....	15 00	80	Press-hands .....	4 50
1	Steel-temperer's assistant .....	10 00	8	Packers .....	5 00
3	Steel-cutters .....	7 50	30	Pasters .....	4 00
3	Furnace-boys .....	6 00	140	Kid-sewers .....	3 00
1	Japan-overseer .....	18 00			

Table showing the average daily wages of persons employed in a bank-lock factory in Stamford, Conn., in the year 1872.

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Machinists, best.....	\$3 00 to \$4 00	Engineers.....	\$2 50
Machinists, ordinary.....	2 25 to 3 00	Pattern-makers and carpenters ..	\$4 50 to 5 50
Machinists, inferior.....	1 50 to 2 25	Laborers, carters, &c.....	1 50 to 2 00
Machinists' helpers.....	1 00 to 1 50	Apprentices.....	*70 to 1 50
Blacksmiths.....	3 50	Brass-founders.....	2 75 to 4 00
Blacksmiths' helpers.....	1 75		

\* Apprentices receive 70 cents per day for the first year, 90 cents for the second, \$1.15 for the third, and \$1.50 for the fourth.

Table showing the average weekly wages of persons employed in iron-safe manufactories in Cincinnati, Ohio, in the year 1872, and in Chicago, Ill., in the year 1874.

[Hours of labor per week, 60.]

Occupation.	Wages in—		Occupation.	Wages in—	
	Cincinnati in 1872.	Chicago in 1874.		Cincinnati in 1872.	Chicago in 1874.
Machinists, best.....	\$20 00 to \$25 00	.....	Engineers.....	\$16 00	\$15 00
Machinists, ordinary.....	15 00 to 20 00	\$15 00	Pattern-makers and carpenters ..	\$20 00 to 25 00	18 00
Machinists, inferior.....	12 00 to 15 00	.....	Assistants.....	12 00 to 15 00	.....
Machinists' helpers.....	10 00 to 12 00	.....	Laborers, carters, &c.....	.....	9 00
Blacksmiths.....	20 00 to 25 00	12 00	Apprentices.....	3 00 to 8 00	5 00
Blacksmiths' helpers.....	12 00 to 15 00	.....	Turners.....	15 00 to 20 00	.....
Foremen.....	25 00 to 30 00	38 50			

Table showing the average weekly wages of persons employed in scale-making and steam-heating works in Chicago, Ill.

[Hours of labor per week, 60.]

SCALE-MAKERS' WORKS.		STEAM-HEATING WORKS.	
Occupation.	Wages.	Occupation.	Wages.
Scale-makers.....	\$18 00	Foremen.....	\$30 00
Beam-makers.....	20 00	Fitters.....	18 00
Blacksmiths.....	15 00	Fitters' helpers.....	12 00
Carpenters.....	15 00	Carpenters.....	18 00
Laborers.....	10 00	Masons.....	16 00
Apprentices.....	4 00	Engineers.....	15 00
Foremen.....	30 00	Blacksmiths.....	12 00

Table showing the average weekly wages of persons employed in sheet-iron works in Galveston, Tex.

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Tinners.....	\$18 00	Machinists.....	\$18 00
Gas-fitters.....	18 00	Sheet-iron workers.....	15 00
Coppersmiths.....	21 00	Apprentices.....	5 00
Blacksmiths.....	21 00		

Table showing the average weekly wages of persons employed in a nail-mill in Belleville, Ill.

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Nailers .....	\$35 00	Hookers-up .....	\$12 00
Feeders .....	8 00	Draggers-out .....	12 00
Boilers .....	30 00	Roughers .....	18 00
First helpers .....	15 00	Shovers-under .....	12 00
Second helpers .....	6 00	Engineers .....	17 40
Heaters .....	35 00	Laborers .....	10 00
Heaters' helpers .....	19 00	Apprentices .....	2 40
Shear-men .....	25 00	Foremen .....	35 00
Rollers .....	40 00	Mason and helper .....	18 00
Catchers .....	20 00		

Table showing the average weekly wages of persons employed on the Marine Railway, Madison, Ind.

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Ship-carpenters .....	\$18 00	Teamsters .....	\$10 00
Calkers .....	18 00	Engineers .....	18 00
Boilers .....	15 00	Laborers .....	9 00
Blacksmiths .....	18 00	Apprentices .....	4 00
Joiners .....	15 00	Foremen .....	22 50
Mill-hands .....	12 00		

Table showing the average weekly wages of persons employed in bridge and car works in Chicago, Ill.

[Hours of labor per week, 60.]

Average number employed.	Occupation.	Wages.	Mean rates.
15	Machinists .....	\$15 50 to \$18 00	\$16 75
20	Drillers .....	9 60 to 12 00	10 80
10	Bolt-cutters .....	8 40 to 10 50	9 45
5	First-class blacksmiths .....	15 00 to 16 50	15 75
25	Blacksmiths' helpers .....	2 50	9 50
30	First-class carpenters .....	15 00	15 00
50	Second-class carpenters .....	13 50	13 50
20	First-class helpers .....	12 00	12 00
30	Second-class helpers .....	9 00	9 00
5	Pattern-makers .....	15 00 to 16 50	15 75
1	Engineer .....	18 00 to 20 00	19 00
75	Laborers or unskilled workmen .....	9 00 to 10 50	9 75
20	Apprentices or boys .....	4 00 to 6 00	5 00
10	Foremen or overseers .....	15 00 to 20 00	22 00

## IRON-SHIP BUILDING.

*Average rate of wages (per week of 60 hours) paid to persons employed in the ship-building yard and iron-works of Messrs. W. Cramp & Sons, Philadelphia, at the close of 1874.*

ENGINEERING AND BOILER WORKS.			SHIP-BUILDING YARD.		
Average number.	Occupation.	Wages.	Average number.	Occupation.	Wages.
	<b>Machinists:</b>				
16	Best .....	\$18 00	16	Fitters .....	\$17 00
24	Ordinary .....	15 00	7	Helpers .....	9 00
17	Inferior .....	12 00	5	Angle-iron smiths .....	18 00
23	Helpers .....	10 50	12	Helpers .....	16 00
58	Pattern-makers and joiners .....	16 50	14	Ship-smiths .....	18 00
23	Engine-fitters .....	16 00	22	Helpers .....	10 00
33	Blacksmiths .....	16 50	115	Riveters .....	13 50
6	Apprentices .....	4 00			12 00
47	Laborers .....	9 00	68	Holders-on .....	10 50
21	Riggers .....	10 50	125	Rivet-boys .....	4 00
67	Boiler-makers .....	13 50	28	Calkers .....	11 00
115	Riveters and calkers .....	13 50	14	Drillers .....	10 50
68	Holders-on .....	10 50	47	Joiners .....	16 00
	Flangers .....	28 00	3	Apprentices .....	4 00
125	Rivet-boys .....	4 00	11	Pattern-makers .....	16 50
229	Laborers and helpers .....	9 00	57	Machinists .....	16 00
4	Foremen, (engineer, &c.) .....	30 00	70	Carpenters .....	18 00
9	Foremen, (sundry) .....	25 00	20	Painters .....	15 00
			21	Riggers .....	10 50
			229	Laborers .....	9 00
			6	Carters .....	10 00
				Furnace-men .....	10 50
			13	Foremen .....	25 00
885	Average .....	14 08	903	Average .....	12 42

*Average rate of wages (per week of 60 hours) paid to persons employed in the ship-building yard and iron works of Messrs. Pusey, Jones & Co., Wilmington, Del., at the close of 1874.*

ENGINEERING AND BOILER WORKS.		SHIP-BUILDING YARD.	
Occupation.	Wages.	Occupation.	Wages.
<b>Machinists:</b>		<b>Fitters .....</b>	<b>\$12 00</b>
Best .....	\$17 00	Helpers .....	8 00
Ordinary .....	14 50	Angle-iron smiths .....	16 00
Inferior .....	11 00	Helpers .....	8 50
Helpers .....	7 50	Ship-smiths .....	15 00
Pattern-makers and joiners .....	14 50	Helpers .....	5 50
Turners .....	15 00	Riveters .....	10 00
Engine-fitters .....	15 00	Holders-on .....	8 50
Blacksmiths .....	13 00	Rivet-boys .....	3 00
Hammer-men, (at steam-hammer) .....	20 00	Calkers .....	15 00
Millwrights .....	13 00	Drillers .....	10 00
Apprentices* .....	7 50	Joiners .....	13 50
Laborers .....	7 50	Apprentices* .....	15 00
Brass-founders .....	14 50	Cabinet-makers .....	14 50
Foundry dressers .....	7 50	Pattern-makers .....	13 50
Foundry laborers .....	7 50	Block-makers .....	13 50
Brass-finishers .....	14 00	Machinists .....	13 50
Coppersmiths .....	13 50	Carpenters .....	16 00
Crane-men .....	7 50	Boat-builders .....	12 00
Riggers .....	13 00	Iron-finishers .....	13 50
Boiler-makers .....	12 50	Brass-finishers .....	14 00
Riveters and calkers .....	11 00	Mechanics .....	14 00
Holders-on .....	9 00	Plumbers .....	15 00
Flangers .....	17 00	Tinsmiths .....	12 50
Blacksmiths .....	13 50	Painters .....	12 50
Rivet-boys .....	3 25	Red-leaders .....	10 50
Laborers and helpers .....	7 75	Riggers .....	13 00
Foreman, (engineer, &c.) .....		Laborers .....	8 00
Foremen, (sundry) .....		Carters .....	8 00
		Furnace-men .....	8 75
		Foremen .....	
Average, including laborers and apprentices .....	11 00	Average .....	9 50

\* Taken for a term of 5 years—1st year, \$2 per week; 2d year, \$3; 3d year, \$4; 4th year, \$5; 5th year, \$6.  
† \$100 and \$125 per month. ‡ \$100 per month.

*Average rate of wages (per week of 60 hours) paid in 1874 to persons employed in the machine-shop, iron-ship-yard, and car-works of the Harlan & Hollingsworth Company, Wilmington, Delaware.*

Average number.	Occupation.	Wages.	Leading articles produced.
	<b>Machinists:</b>		
18	Best.....	\$16 50	Iron steamships. Iron steamboats. Iron sailing-vessels. Engines. Boilers. Tanks. Machine-work generally. Cars of every description.
46	Ordinary.....	15 00	
6	Inferior.....	12 00	
7	Helpers.....	8 50	
8	Boiler-makers.....	15 00	
10	Helpers.....	8 50	
30	Riveters.....	15 00	
15	Holders-on.....	9 00	
3	Flangers.....	17 00	
8	Helpers.....	9 00	
20	Blacksmiths.....	15 00	
20	Helpers.....	8 50	
60	Iron-hull-builders.....	12 00	
260	do.....	8 50	
15	Foremen.....	12 00	
4	Engineers.....	15 00	
220	Pattern-makers, car-builders, and ship-joiners.....	9 00	
20	Assistants.....	8 50	
40	Laborers, carters, &c.....	5 00	
18	Apprentices.....	15 00	
20	Painters.....	15 00	
80	Ship-carpenters.....	14 00	
8	Millwrights.....	8 50	
10	Assistants.....		

#### IRON-FOUNDERY AND MACHINE-SHOP IN CALIFORNIA.

*Average rate of wages paid to persons employed in the Union Iron Foundry, in the city of San Francisco, California, in the year 1874.*

[Hours of labor per day, 10; 60 hours per week.]

Occupation.	Weekly wages or earnings.	Leading articles.
Iron-molders.....	\$18 00 to \$24 00	Engines; boilers; mining-machinery, consisting of hoisting-works, quartz-mills, saw-mills, flour-mills, and all kinds of heavy iron-work for milling and manufacturing purposes.
Machinists { Best.....	21 00 to 24 00	
Ordinary.....	18 00 to 21 00	
Inferior.....	15 00 to 18 00	
Helpers.....	10 00 to 13 50	
Boiler-makers.....	18 00 to 21 00	
Helpers.....	10 00 to 13 50	
Riveters.....	18 00 to 21 00	
Holders-on.....	12 00 to 13 50	
Flangers.....	24 00 to 27 00	
Helpers.....	12 00 to 13 50	
Blacksmiths.....	18 00 to 21 00	
Helpers.....	12 00 to 13 50	
Foremen.....	30 00 to 36 00	
Pattern-makers and carpenters.....	18 00 to 24 00	
Assistants.....	12 00 to 13 50	
Laborers, &c.....	10 00 to 13 50	
Apprentices.....	4 00 to 10 00	

## CLOTHING.

Table showing the average weekly earnings of persons employed in the manufacture of clothing in the following States, in the year 1874.

Occupation.	New York.	New Jersey.	West Virginia.	Virginia.	Kentucky.	North Carolina.	Georgia.	Louisiana.	Texas.	Tennessee.
Head cutters for custom-clothing	\$40 00	\$30 00	\$40 00	\$25 00	\$20 33	\$3 50	\$30 00	\$18 00	\$25 00	\$22 00
Cutters for ready-made clothing	21 50	20 00	.....	12 00	18 75	.....	.....	12 00	.....	18 00
Bushelmen	15 00	18 00	15 00	18 00	10 00	.....	14 00	11 40	15 00	.....
Machine-operators	8 00	8 00	7 00	.....	6 00	4 00	6 00	6 00	.....	6 00
Finishers	8 00	7 70	6 00	6 00	10 00	12 50	30 00	4 00	.....	4 50
Laborers or packers	15 00	12 00	.....	.....	10 00	.....	3 50	10 00	.....	6 00
Apprentices or boys	7 00	5 00	3 00	.....	5 00	2 00	.....	3 00	.....	.....
Ready-made clothing:										
On sack overcoats. { Fine	.....	.....	.....	12 00	12 00	.....	.....	7 00	.....	.....
On sack overcoats. { Cheap	.....	.....	.....	12 00	10 00	.....	.....	6 00	.....	.....
Broadcloth frock-coats	.....	.....	.....	19 00	10 50	.....	.....	7 50	.....	.....
Cassimere business-coats	.....	.....	.....	12 00	10 00	.....	.....	6 00	.....	.....
Cassimere sack-coats	.....	.....	.....	10 00	10 00	.....	.....	6 75	.....	.....
Vests, woolen	.....	.....	.....	3 00	4 75	.....	.....	5 00	.....	.....
Pantaloon, woolen	.....	.....	.....	3 00	4 75	.....	.....	6 75	.....	.....
Shirts... { Muslin	.....	.....	.....	3 00	.....	.....	.....	4 00	.....	.....
Shirts... { Woolen	.....	.....	.....	3 00	.....	.....	.....	.....	.....	.....
Custom-made clothing:										
On sack overcoats	.....	.....	.....	26 00	18 00	.....	.....	24 00	.....	.....
Broadcloth dress-coats	.....	.....	.....	25 00	15 51	.....	.....	20 00	.....	.....
Cassimere business-coats	.....	.....	.....	25 00	19 50	.....	.....	20 00	.....	.....
Cassimere sack-coats	.....	.....	.....	25 00	16 50	.....	.....	16 00	.....	.....
Vests	.....	.....	.....	9 00	8 50	.....	.....	15 00	.....	.....
Pantaloon	.....	.....	.....	13 00	15 25	.....	.....	16 50	.....	.....

Occupation.	Ohio.	Illinois.	Indiana.	Iowa.	Wisconsin.	Minnesota.	Montana.	Wyoming.	California.	Washington Territory.	General average.
Head cutters for custom-clothing	\$25 00	\$15 00	\$35 00	\$40 50	\$30 00	\$25 00	\$30 00	\$30 00	\$34 37	\$25 00	\$22 34
Cutters for ready-made clothing	.....	12 00	.....	.....	18 00	.....	.....	.....	.....	.....	15 08
Bushelmen	.....	15 00	15 00	15 00	11 00	15 00	23 00	15 00	21 87	.....	15 57
Machine-operators	.....	3 00	.....	15 00	6 00	.....	25 00	.....	21 87	.....	9 76
Finishers	.....	12 00	.....	.....	12 00	.....	25 00	.....	28 12	.....	11 23
Laborers or packers	.....	.....	.....	.....	10 00	.....	25 00	.....	18 75	.....	10 66
Apprentices or boys	.....	.....	3 00	.....	.....	.....	.....	.....	10 00	.....	4 75
Ready-made clothing:											
On sack overcoats. { Fine	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 33
On sack overcoats. { Cheap	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9 23
Broadcloth frock-coats	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 00
Cassimere business-coats	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9 23
Cassimere sack-coats	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 99
Vests, woolen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4 44
Pantaloon, woolen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4 83
Shirts... { Muslin	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 50
Shirts... { Woolen	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 00
Custom-made clothing:											
Sack overcoats	.....	.....	.....	.....	.....	.....	.....	.....	.....	21 00	22 25
Broadcloth dress-coats	.....	.....	.....	.....	.....	.....	.....	.....	.....	21 00	20 38
Cassimere business-coats	.....	.....	.....	.....	.....	.....	.....	.....	.....	18 00	20 38
Cassimere sack-coats	.....	.....	.....	.....	.....	.....	.....	.....	.....	18 00	18 87
Vests	.....	.....	.....	.....	.....	.....	.....	.....	.....	18 00	12 62
Pantaloon	.....	.....	.....	.....	.....	.....	.....	.....	.....	18 00	15 69

\* Boy.

Table showing the rates paid to operatives in clothing establishments, for piecework, in 1874.

Articles.	New York.	New Jersey.	West Virginia.	Virginia.	Kentucky.	North Carolina.	Georgia.	Louisiana.	Texas.
<b>Ready-made clothing:</b>									
Sack overcoats. { Fine.....each..	\$5 00	\$4 00		\$4 00	\$3 50			\$3 50	
{ Cheap.....each..	3 00	2 00		2 00	2 75			2 25	
Broadcloth frock-coats.....each..	4 50	4 00		3 00	4 00			3 75	
Cassimere business-coats.....each..	2 66	2 00		2 50	2 50			3 00	
Cassimere sack-coats.....each..	2 00	1 50		2 00	2 50	2 25		2 25	
Vests, woolen.....each..	27	75		50	67	25		80	
Pantaloon, woolen.....per pair..	94	75		55	67	15		75	
Shirts. { Muslin.....per dozen..				2 50		1 00		2 00	
{ Woolen.....per dozen..				2 50					
<b>Custom-made clothing:</b>									
Sack overcoats.....each..		8 00	\$10 00	13 00	7 00	5 00	\$12 00	9 00	\$11 00
Broadcloth dress-coats.....each..		8 00	12 00	12 00	8 17	10 00	10 00	13 00	12 00
Cassimere business-coats.....each..		5 00	10 00	10 00	6 33	5 00	8 50	10 00	8 00
Cassimere sack-coats.....each..		5 06	8 00	9 00	4 75	3 00	8 50	10 00	7 00
Vests.....each..		1 50	2 00	1 50	1 42	1 00	1 50	2 50	3 00
Pantaloon.....per pair..		2 00	2 00	2 25	1 87	2 50	2 00	2 75	3 00
Shirts, muslin.....per dozen..									

Articles.	Tennessee.	Ohio.	Illinois.	Indiana.	Wisconsin.	Minnesota.	Wyoming.	California.	Washington Territory.	General average.
<b>Ready-made clothing:</b>										
Sack overcoats. { Fine.....each..	\$4 00				\$2 50			\$6 00		\$4 06
{ Cheap.....each..	1 25				1 50			4 00		2 34
Broadcloth frock-coats.....each..	4 50				2 75			6 00		4 06
Cassimere business-coats.....each..	1 50				1 00			5 00		2 52
Cassimere sack-coats.....each..	1 00				90			2 00		1 52
Vests, woolen.....each..	50				32			2 07		74
Pantaloon, woolen.....per pair..	50				70			1 50		70
Shirts. { Muslin.....per dozen..					1 44			6 00		2 59
{ Woolen.....per dozen..					1 44			4 00		2 65
<b>Custom-made clothing:</b>										
Sack overcoats.....each..	8 00	\$8 00	\$6 00	\$10 00	\$8 00	\$9 00	\$12 50	17 00	\$10 00	9 62
Broadcloth dress-coats.....each..	10 00	9 00	8 00	10 00	10 00	12 00		16 00	14 00	10 88
Cassimere business-coats.....each..	4 50	7 00	7 00	8 00	7 00	8 00	10 00	13 00	8 50	7 99
Cassimere sack-coats.....each..	4 00	6 75	5 50	6 00	7 00	7 50	10 00	11 00	8 00	6 97
Vests.....each..	1 50	1 25	2 25	2 50	2 00	2 00	3 50	3 50	3 50	2 14
Pantaloon.....per pair..	2 00	1 25	2 25	3 00	2 50	3 00	3 75	4 00	3 75	2 58
Shirts, muslin.....per dozen..			10 00		4 20			13 50		9 23

## LEATHER.

Table showing the average weekly wages paid to persons employed in the manufacture of leather in the following States in the year 1874.

Occupation.	New Hampshire.	New York.	Maryland.	West Virginia.	Ohio.	Indiana.	Illinois.	Kentucky.	Tennessee.	Louisiana.	California.	Oregon.	General average.
<b>Sole-leather.</b>													
Tanners.....			\$12 00		\$12 50			\$12 50	\$15 00	\$11 00	\$15 00	\$15 00	\$13 28
Beam-bands.....		\$10 00	10 00	\$12 00	12 50	\$10 00		14 50	15 00	10 50	15 00	18 00	12 75
Yard.....		8 33	10 00	9 50	12 00	9 00		10 00	9 00	7 50	10 50	14 00	9 93
Rollers & spongers.....		10 00		12 00	9 00	12 00		17 50	15 00	8 50	16 50	18 00	13 16
Bark-grinders.....		7 50	9 00	9 00	9 00	9 00		8 00	9 00	6 00	10 50	13 00	9 00
Common laborers.....		10 00	9 00	8 00	9 50	8 00		9 50	9 00	6 00	10 50	12 00	9 15



*Average weekly wages paid to persons employed in manufacture of leather, &c.—Continued.*

Occupation.	New Hampshire.	New York.	Maryland.	West Virginia.	Ohio.	Indiana.	Illinois.	Kentucky.	Tennessee.	Louisiana.	California.	Oregon.	General average.
<i>Upper leather and calf-skin.</i>													
Tanners.....	\$12 00		\$12 00		\$12 50		\$11 00	\$12 00		\$12 50	\$15 00	\$17 00	\$13 00
Curriers.....			15 00	\$12 00	13 50	\$13 50	13 00	12 00	\$20 00	16 50	16 50	16 00	15 00
Splitters.....	18 00		15 00	12 00	12 00			15 00	18 00	16 50	16 50	24 00	14 75
Shavers.....	16 00		18 00	15 00	12 00			16 00	25 00	20 00	16 50	23 00	17 25
Table-hands, scour- ers.....			10 00	10 00	10 00		11 00	10 00	9 00	12 00	16 50	15 00	11 30
Blackers.....			12 00	12 00	10 00			11 00	9 00	12 00	16 50	15 00	12 18
Finishers.....			15 00	13 00	12 00			12 00	20 00	15 00	16 50	17 00	15 06
<i>Morocco, patent and enameled leather.</i>													
Tanners.....								10 00			15 00		12 30
Beam-hands.....								14 00			15 00		14 30
Shavers.....								18 00			16 50		17 25
Sewing-girls.....								4 00			9 00		6 50
Finishers.....								20 00			16 50		18 25
Colorers.....								18 00			16 50		17 25
<i>Sheep-skins, skins, &amp;c.</i>													
Engineers.....		\$8 00	12 00	11 25	10 00	12 00		16 00	15 00		13 50		12 27
Laborers or un- skilled workmen.....		9 00	9 00			7 50		9 25	9 00		10 50	12 00	9 46
Apprentices or boys.....						4 50		5 00					4 75
Foremen or over- seers.....		13 00	12 00	14 50		20 00		20 50	20 00		18 00		16 25

### BOOT AND SHOE FACTORIES.

*Table showing the average weekly wages of persons employed in boot and shoe factories in the following States in the year 1874.*

Occupation.	New York.	Massachusetts.	Illinois.	California.	General average.
Cutters.....	\$24 00	\$16 00	\$18 00	\$20 00 to \$25 00	\$21 37
Stock-fitters.....	19 00	15 00	12 00	15 00 to 26 00	16 33
Sole-sewing-machine operators.....	24 00	15 00	10 00		16 33
Other sewing-machine operators.....	9 50	10 00		20 00 to 25 00	14 06
Lasters.....	24 00	10 00		20 00 to 25 00	18 08
Second lasters.....	24 00	10 00			17 08
Heelers.....	24 00			20 00 to 25 00	23 25
Trimmers.....	25 50	10 00		20 00 to 25 00	19 33
Burnishers.....	24 00	10 00		20 00 to 25 00	22 25
Finishers.....	25 50	10 00	20 00	20 00 to 25 00	19 56
Hand-sewers.....				25 00 to 30 00	27 56
Shoe-cleaners.....		12 00		22 00 to 27 00	18 25
Packers.....	10 00			20 00 to 24 00	16 00
Laborers or unskilled workmen.....	18 50				18 50
Apprentices or boys.....	6 00	5 00		5 00 to 15 00	7 00
Foremen or overseers.....	35 00	20 00		25 00 to 35 00	27 50
Crimpers.....			20 00		
Treers.....			20 00		
Bottomers.....			15 00		

## TOBACCO.

Table showing the average earnings of persons employed in the tobacco-manufactories of the undermentioned States in the year 1874.

Occupation.	New York.		Delaware.		Virginia.		W. Virginia.		Ohio.		Indiana.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<b>FINE-CUT TOBACCO.</b>												
Stripping .....		\$4 00			\$7 00	\$3 75	\$6 00		\$3 50	\$3 00		
Casing .....	\$15 00				5 75		6 00					
Cutting .....	14 00				6 50							
Dressing .....												
Grinding .....	15 50											
Packing .....		7 50			7 00				9 00			
Spreading .....	12 00	7 50										
Picking .....	8 00				8 25	4 25	12 00		7 00			
<b>SMOKING.</b>												
Cutting .....					6 75	6 37	6 00					
Granulating .....	12 50				6 75							
Laborers .....					5 50		4 00				\$9 00	
<b>SNUFF.</b>												
Packing .....			\$12 16	\$5 00	7 50							
Laborers .....			10 49		6 00						9 00	

Occupation.	Wisconsin.		Iowa.		Missouri.		Kentucky.		Louisiana.		Georgia.		Average.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<b>FINE-CUT TOBACCO.</b>														
Stripping .....	\$1 67*		\$2 25	\$2 25			\$3 33		\$2 00		\$5 00	\$5 00	\$3 24	\$3 60
Casing .....	9 00		9 00		\$9 00		8 67		11 00		7 50*		8 99	
Cutting .....	16 50		12 00				11 50		12 00		10 00		11 78	
Dressing .....							9 00		10 00				9 50	
Grinding .....	18 00						9 00		10 00				13 12	
Packing .....	8 33		4 00		10 00		6 33		9 00		7 50		7 64	7 50
Spreading .....	4 50		4 00				4 50		5 00				6 00	7 50
Picking .....					\$4 50		8 00				10 00		8 87	4 37
<b>SMOKING.</b>														
Cutting .....							12 00						8 25	6 37
Granulating .....			5 00				12 00		10 00				9 25	
Laborers .....							7 50		10 00				7 20	
<b>SNUFF.</b>														
Packing .....									10 00				9 88	5 00
Laborers .....	7 66						1 50*				7 50		7 02	

\* Children.

## CIGARS.

Table showing the average earnings of persons employed in the manufacture of cigars in the undermentioned States in the year 1874.

States.		Occupation.				
		Cigar-makers	Strippers.	Casers.	Packers.	Laborers.
New Hampshire	Per 1,000	\$14 00				
	Weekly earnings	16 00	\$5 00		\$7 00	
Vermont	Per 1,000	9 00				
	Weekly earnings	12 00	2 50			
New York	Per 1,000	12 00				
	Weekly earnings	17 50	7 10	17 00	23 50	12 00
New Jersey	Per 1,000	8 40			1 22	
	Weekly earnings	10 35	2 75		15 00	
Delaware	Per 1,000	5 10			75	
	Weekly earnings	6 55	2 25		14 00	
Maryland	Per 1,000	8 00				
	Weekly earnings		2 00	\$2 00	17 00	
Ohio	Per 1,000	5 46				
	Weekly earnings	9 50	2 56	10 00	13 50	\$6 50
Indiana	Per 1,000	9 50			1 00	
	Weekly earnings	10 00	3 00		15 00	
Illinois	Per 1,000	8 63			1 00	
	Weekly earnings	10 75	2 50	7 50	12 67	
Wisconsin	Per 1,000	11 50			1 50	
	Weekly earnings	13 75	4 37	5 00	20 00	10 00
Minnesota	Per 1,000	12 00				
	Weekly earnings	12 50	3 25		20 00	
Iowa	Per 1,000	10 25			1 06	
	Weekly earnings	11 00	3 00	7 50	13 88	
Arkansas	Per 1,000	15 00				
	Weekly earnings	12 00				
Kentucky	Per 1,000	9 50				
	Weekly earnings	12 17	3 00		17 00	6 00
Virginia	Per 1,000	10 25				
	Weekly earnings	13 00	3 00		10 00	
West Virginia	Per 1,000	20				
	Weekly earnings	6 50	2 00	15 00		6 00
North Carolina	Per 1,000	13 00				
	Weekly earnings	16 00	3 00			
Georgia	Per 1,000	11 50			1 50	
	Weekly earnings	15 00	3 50		15 00	
Tennessee	Per 1,000	11 75				
	Weekly earnings	14 00	2 50		20 00	
Louisiana	Per 1,000	16 00				
	Weekly earnings	17 00	8 50	10 00	22 50	3 00
California	Per 1,000					
	Weekly earnings	7 50	5 00		10 00	
Average	Per 1,000	10 57	41		1 16	
	Weekly earnings	12 15	3 54	9 25	15 65	7 25

## FURNITURE.

Table showing the average weekly wages of persons employed in furniture-manufactories in the following States in the year 1874.

Occupation.	Massachusetts.	New York.	Illinois.	Tennessee.	Alabama.	Louisiana.	General average.
Cabinet-makers	\$16 00	\$15 00	\$15 75	\$19 00	\$16 00	\$10 00 to \$13 00	\$15 45
Chair-makers						10 00 to 12 00	11 00
Carvers	18 00					15 00	16 50
Turners	16 00			12 00	15 00	10 00 to 12 00	13 50
Painters				10 00			10 00
Upholsterers	18 00	18 00	25 00		15 00	12 00 to 15 00	17 50
Varnishers	12 00	15 00				12 00 to 15 00	13 50
Scroll-sawyers	15 50			10 00		10 00 to 12 00	12 16
Laborers and unskilled workmen	7 25	16 00	15 00	10 00	16 00	6 00 to 9 00	11 25
Apprentices or boys	4 50	3 50	5 00			3 00	16 00
Foremen or overseers			25 00				25 00

## AGRICULTURAL-IMPLEMENT FACTORIES.

Table showing the average weekly wages of persons employed in agricultural-implement factories in the following States in the year 1874.

Occupation.	New York.	Ohio.	Minnesota.	Iowa.	Kentucky.	Virginia.	General average.
Molders .....		\$22 50	\$21 00			\$18 00	\$20 50
Machinists .....	\$13 00 to \$21 00	12 87	18 00	\$15 00		18 00	16 37
Blacksmiths .....	12 00 to 21 00	14 25	12 00	13 50	\$15 00	15 00	14 54
Blacksmith's helpers .....	9 00	9 75	10 50	9 00	8 00	7 00	8 81
Grinders .....		10 00	10 50	13 50			11 33
Wood-workers .....	12 00 to 15 00	15 75	13 50	16 00		12 00	14 15
Plow-makers .....				18 00	15 00	19 00	15 00
Pattern-makers .....	18 00		15 00		19 00	15 00	15 00
Carpenters .....	12 00 to 15 00	14 63	13 50		19 00	18 00	14 40
Painters .....	12 00 to 15 00	12 75	19 00	12 00	7 00	9 00	13 25
Engineers .....	15 00	16 00	15 00	12 00	15 00		14 60
Watchmen .....			12 00	9 00		6 00	9 00
Teamsters .....			10 50	9 00		5 00	8 16
Laborers or unskilled workmen .....	9 00	9 50	9 00	8 00	7 00	5 00	7 91
Apprentices or boys .....	6 00	5 50		4 00	5 00		5 12
Foremen or overseers .....	30 00	25 00	24 00	18 00	15 00	20 00	23 00

## GLASS-WORKS.

Table showing the average weekly wages of persons employed in the window-glass works of Messrs. Thomas Wightman &amp; Co., in the city of Pittsburgh, Pa., in the year 1874.

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Glass-blowers, window .....	\$30 00	Packers .....	\$10 50
Vial-blowers .....	25 00	Blacksmiths .....	25 00
Assistants, window-glass blowers' .....	20 00	Carpenters .....	12 00
Batch-mixers .....	10 50	Demijohn-coverers .....	12 00
Master teasers .....	25 00	Skilled boys .....	6 00
Assistant teasers .....	12 00	Laborers or unskilled workmen .....	10 50
Pot-makers .....	25 00	Apprentices or boys .....	10 00
Assistant pot-makers .....	10 50	Foremen or overseers .....	33 33

Table showing the average weekly wages paid to persons employed in glass-works in Berkshire, Massachusetts.

[Hours of labor per week, 60.]

Average number employed.	Occupation.	Wages.	Average number employed.	Occupation.	Wages.
30	Blowers .....	\$25 00	10	Pot-makers and workers in pot-room .....	\$10 00
30	Gatherers .....	16 00		Engineers .....	12 00
6	Flatteners .....	30 00	2	Laborers or unskilled workmen .....	9 00
9	Cutters .....	28 00	10	Apprentices or boys .....	8 00
3	Master teasers .....	25 00	8	Foremen or overseers .....	25 00
6	Subteasers .....	13 00	2		

NOTE.—The principal impediment to the successful competition with the Belgian manufacturers is the unwillingness of the employes to act independent of trades-unions. We are isolated, being the only establishment for window-glass in New England, but our men are controlled by a union ruled in Pittsburgh. Our men will not do what the Belgian workmen do, and it is impossible for us to turn out more than 75 per cent. as much product as they do.

Table showing the average monthly wages of best window-glass blowers in Pittsburgh, Pa.

Occupation.	Wages.	Occupation.	Wages.
Large double glass, say.....	\$250 to \$300	Best gatherers .....	\$120 to \$140
Second class, or, rather, single strength:		Second-class gatherers .....	100
Blowers of best .....	150 to 175	Best flatteners .....	175 to 200
Second-rate same .....	125 to 150	Master teasers .....	150
Third-rate same .....	100 to 140	Second teasers .....	120
		Glass-cutters .....	150 to 200

Six blowers will average in one calendar month 108,000 square feet.

## CARRIAGES.

Table showing the average weekly wages of persons employed in carriage-making and car-building in the following States in the years 1872 and 1873, respectively.

Occupation.	New Hampshire, 1872.	Massachusetts, 1872.	Connecticut, 1873.	New York, 1872.	New Jersey, 1872.	Pennsylvania, 1872.	Delaware, 1872.	Maryland, 1872.	Ohio, 1872.
Body-makers .....	\$12 00	\$15 00	\$21 00	\$22 50	\$15 00	\$12 42	\$18 00	\$13 50	\$17 00
Carriage-part makers .....	15 00	13 50	.....	17 00	.....	.....	18 00	15 50	15 50
Wheelwrights .....	15 00	15 00	.....	17 00	.....	12 00	18 00	15 00	15 00
Coach-smiths .....	17 00	18 00	18 00	25 50	.....	13 00	18 00	15 00	15 00
Helpers .....	9 00	11 00	15 00	9 50	.....	9 40	7 00	5 00	8 00
Finishers .....	14 00	12 00	.....	15 50	.....	.....	12 00	13 50	.....
Ornamenters .....	18 00	18 00	.....	25 00	.....	.....	15 00	.....	18 00
Painters .....	15 00	15 00	18 00	15 50	15 00	14 00	15 00	14 00	15 50
Trimmers .....	17 00	15 00	19 50	16 50	18 00	12 00	15 00	14 00	18 00
Stitchers .....	13 00	12 00	.....	12 50	.....	.....	12 00	.....	.....
Engineers .....	.....	.....	.....	36 00	.....	.....	10 00	.....	15 00
Laborers or unskilled workmen .....	12 00	12 00	.....	11 00	.....	.....	8 00	.....	6 00
Apprentices or boys .....	7 50	5 00	.....	5 00	7 00	4 00	5 00	.....	4 50
Foremen .....	18 00	24 00	30 00	35 00	.....	.....	20 00	.....	16 00
CAR-BUILDERS.									
Wood-workers .....	.....	.....	.....	.....	.....	.....	15 38	.....	.....
Blacksmiths .....	.....	.....	.....	.....	.....	.....	13 00	.....	.....
Helpers .....	.....	.....	.....	.....	.....	.....	7 75	.....	.....
Painters .....	.....	.....	.....	.....	.....	.....	14 37	.....	.....
Hours of labor per week ..	60	.....	50	50 1/2	.....	60	60	.....	60

Occupation.	Illinois, 1872.	Wisconsin, 1873.	Wisconsin, 1872.	Minnesota, 1872.	Iowa, 1872.	Missouri, 1872.	Virginia, 1872.	West Virginia, 1872.	Kentucky, 1872.
Body-makers .....	.....	\$19 00	\$13 50	\$30 00	\$15 00	\$16 00	\$15 75	\$21 00	\$19 00
Carriage-part makers .....	.....	14 00	.....	15 50	12 00	.....	13 50	15 50	13 00
Wheelwrights .....	.....	.....	15 00	.....	15 00	16 00	13 50	17 50	14 00
Coach-smiths .....	\$13 00	19 00	.....	20 00	16 00	.....	17 00	25 00	15 50
Helpers .....	6 50	9 00	.....	.....	5 50	.....	6 75	8 50	6 75
Finishers .....	.....	10 00	.....	.....	.....	.....	6 00	15 00	9 50
Ornamenters .....	.....	.....	.....	.....	24 00	.....	16 00	19 00	20 00
Painters .....	12 00	15 00	10 50	15 50	15 00	.....	15 00	16 50	15 00
Trimmers .....	.....	15 00	.....	19 00	16 50	.....	15 00	17 00	16 00
Stitchers .....	.....	.....	.....	.....	.....	.....	.....	9 00	12 00
Engineers .....	.....	.....	.....	.....	12 00	.....	.....	9 00	25 00
Laborers or unskilled workmen .....	.....	.....	.....	.....	11 00	.....	6 37	7 00	9 00
Apprentices or boys .....	.....	10 00	4 00	.....	7 00	3 00	3 00	5 00	3 75
Foremen .....	.....	.....	.....	.....	23 00	.....	18 00	21 50	26 00
CAR-BUILDERS.									
Wood-workers .....	.....	.....	.....	15 00	.....	.....	12 00	15 00	16 50
Blacksmiths .....	.....	.....	.....	.....	15 50	.....	14 00	16 00	16 50
Helpers .....	.....	.....	.....	.....	9 00	.....	6 00	9 00	10 50
Painters .....	.....	.....	.....	.....	14 00	.....	15 00	18 00	12 00
Hours of labor per week ..	60	60	59	57	60	60	60	60	57

Table showing the average weekly wages of persons employed in carriage-making, &amp;c.—Con'd.

Occupation.	Tennessee, 1872.	Arkansas, 1872.	Louisiana, 1872.	Alabama, 1872.	Georgia, 1872.	North Carolina, 1872.	California, 1872.	Oregon, 1872.	Average in 1872.	Average in 1873.
Body-makers .....	\$19 35	\$19 50	\$18 00	\$15 00	\$21 00	\$12 95	\$24 00	\$18 00	\$17 92	\$16 48
Carriage-part makers .....	16 50	18 00	17 00	.....	.....	10 00	22 00	18 00	15 31	.....
Wheelwrights .....	.....	16 50	12 00	.....	12 00	10 00	22 00	18 00	15 61	13 75
Coach-smiths .....	20 50	19 50	13 00	18 00	.....	10 00	22 50	19 50	16 43	15 50
Helpers .....	7 25	8 25	8 00	5 00	.....	5 00	15 00	12 00	8 69	12 90
Finishers .....	9 50	10 50	15 00	.....	.....	10 00	15 00	13 50	12 07	.....
Ornamenters .....	21 00	16 50	18 00	.....	.....	12 00	27 50	21 00	19 27	.....
Painters .....	14 25	16 50	12 50	15 00	12 00	12 75	22 00	21 00	15 40	13 90
Trimmers .....	18 00	15 00	15 00	15 00	.....	12 75	21 00	.....	16 15	16 50
Stitchers .....	.....	.....	12 00	.....	.....	.....	12 00	.....	11 81	.....
Engineers .....	.....	.....	.....	.....	.....	20 00	25 00	.....	12 00	.....
Laborers or unskilled workmen .....	.....	7 50	8 00	.....	8 50	5 00	12 00	12 00	9 07	8 50
Apprentices or boys .....	5 00	5 00	3 00	.....	.....	3 50	5 00	6 00	5 14	4 30
Foremen .....	.....	.....	18 00	.....	21 00	18 00	40 00	21 00	22 50	25 50
<b>CAR-BUILDERS.</b>										
Wood-workers .....	13 00	.....	12 50	.....	.....	12 00	21 00	.....	15 26	.....
Blacksmiths .....	20 00	.....	15 00	.....	.....	11 50	27 00	.....	16 50	.....
Helpers .....	.....	.....	9 00	.....	.....	6 00	19 00	.....	9 53	.....
Painters .....	15 00	.....	12 50	.....	.....	12 00	19 00	.....	4 65	.....
Hours of labor per week .....	60	60	60	60	60	60	.....	60	59 6-10	59 6-10

Table showing the average weekly wages of persons employed in carriage-making and car-building in the following States in the year 1874.

Occupation.	Vermont.	Massachusetts.	New York.	Ohio.	Iowa.	Tennessee.	Louisiana.	Georgia.	Average.
Body-makers .....	\$18 00	\$21 00	\$22 50	\$15 00	\$15 00	\$17 25	\$18 00	\$21 00	\$18 46
Carriage-part makers .....	15 00	19 00	17 00	15 00	.....	17 25	17 00	.....	16 70
Wheelwrights .....	.....	21 00	17 00	15 00	15 00	18 00	18 00	.....	16 33
Coach-smiths .....	.....	24 00	25 50	15 00	13 50	19 00	13 00	12 00	17 50
Helpers .....	12 00	14 00	9 50	8 00	9 00	6 00	2 00	.....	9 50
Finishers .....	.....	.....	15 50	15 00	.....	16 50	15 00	.....	15 55
Ornamenters .....	.....	.....	25 00	18 00	.....	18 00	18 00	.....	19 75
Painters .....	15 00	17 50	15 50	15 00	14 00	15 75	12 50	12 00	14 65
Trimmers .....	15 00	22 00	16 50	15 00	.....	17 50	15 00	.....	16 66
Stitchers .....	.....	15 00	12 50	.....	.....	.....	12 00	.....	13 16
Engineers .....	.....	.....	36 00	.....	18 00	.....	.....	.....	27 00
Laborers .....	.....	.....	11 00	9 00	9 00	4 50	8 00	8 50	8 33
Apprentices .....	.....	7 00	5 00	4 50	4 00	3 00	3 00	3 50	4 22
Foremen .....	18 00	18 00	35 00	.....	26 00	.....	18 00	21 00	22 66
<b>CAR-BUILDERS.</b>									
Wood-workers .....	.....	.....	.....	15 00	.....	.....	12 50	.....	13 75
Blacksmiths .....	18 00	.....	.....	6 00	.....	.....	15 00	.....	16 33
Helpers .....	.....	.....	.....	4 00	.....	.....	9 00	.....	6 50
Painters .....	.....	.....	.....	16 00	.....	.....	12 50	.....	14 25
Hours of labor per week .....	60	60	60	60	60	60	60	60	60

## MISCELLANEOUS OCCUPATIONS.

The following tables show the average wages or earnings of persons employed in various occupations in the year 1874.

Place and occupation.	Wages.	Hours per week.	Place and occupation.	Wages.	Hours per week.
<b>BUILDERS' MATERIALS.</b>			<b>SCHOOL AND OFFICE FURNITURE.</b>		
<b>Port Madison (Oregon) mills:</b>			<b>Chicago, Ill.:</b>		
Engineers { First-class... per wk.	\$44 00	72	Machine-hands..... per week.	\$15 00	60
{ Second-class... do..	20 00	72	Bench-hands..... do..	18 50	60
Foremen..... do..	25 00	72	Cabinet-makers..... do..	22 00	60
Sawyers..... do..	20 00	72	Finishers..... do..	10 50	50
Flers..... do..	18 00	72	Packers..... do..	10 50	60
Edgers and screw-turners... do..	10 00	72	Pattern-makers..... do..	15 00	60
Teamsters..... do..	15 00	73	Engineers..... do..	18 00	60
Choppers..... do..	12 00	72	Laborers..... do..	9 00	60
Carpenters..... do..	18 00	72	Apprentices..... do..	3 00	60
Blacksmiths..... do..	20 00	72	Foremen..... do..	24 00	60
Firemen..... do..	9 00	72			
Laborers..... do..	7 00	72			
<b>BUILDING-TRADE.</b>			<b>SASH, DOOR, AND BLIND FACTORY.</b>		
<b>Oregon:</b>			<b>Chicago, Ill.:</b>		
Carpenters or joiners... per day.	3 50	....	Engineers..... per week.	18 00	60
Stone-masons..... do..	5 00	....	Foremen..... do..	21 00	60
Brick-layers..... do..	6 00	....	Machine-hands..... do..	12 00	60
Plasterers {..... per sq. yd.	5 00	....	Carpenters..... do..	12 00	60
{..... per M.	28	....	Men and boys on piecework... do..	8 54	60
Lathers..... do..	2 00	....	Teamsters..... do..	10 55	60
Painters {..... per day.	75	....	Laborers..... do..	3 35	60
{..... per day.	3 00	....	Boys..... do..	3 45	60
Common laborers..... do..	2 00	....			
Excavating cellars... per cu. yd.	20	....	<b>Lebanon, N. H.:</b>		
<b>San Antonio, Tex.:</b>			Foremen..... per week.	17 50	60
Masons..... per week.	15 00	60	Carpenters..... do..	12 00	60
Stone-cutters..... do..	15 00	60	Laborers..... do..	7 50	60
Plasterers..... do..	18 00	60	Apprentices..... do..	3 50	60
Quarrymen..... do..	9 00	60	<b>Chicago, Ill.:</b>		
Teamsters..... do..	18 00	60	Machine-men..... per week.	21 00	60
Carpenters..... do..	15 00	60	Stair-builders..... do..	16 00	60
Blacksmiths..... do..	15 00	60	Carvers..... do..	21 00	60
Laborers..... do..	7 50	60	Joiners..... do..	16 00	60
Apprentices..... do..	7 50	60	Blind-makers..... do..	16 00	60
<b>Chicago, Ill.:</b>			Engineers..... do..	18 00	60
Watchmen..... per week.	9 00	60	Laborers..... do..	11 75	60
Firemen..... do..	12 00	60	Apprentices..... do..	7 50	60
Machinists..... do..	15 00	60	Foremen..... do..	30 00	60
Turners..... do..	18 00	60			
Carpenters..... do..	10 00	60	<b>PLANING-MILLS.</b>		
Sawyers..... do..	10 00	60	<b>Wheeling, W. Va.:</b>		
Stair-builders..... do..	15 00	60	Carpenters..... per week.	13 60	50
Tallymen..... do..	12 00	60	Other mechanics..... do..	13 60	50
Glaziers..... do..	10 00	60	Turners..... do..	16 50	50
Painters..... do..	9 00	60	Box-makers..... do..	7 00	50
Shippers..... do..	20 00	60	Teamsters..... do..	7 00	50
Teamsters..... do..	9 00	60	Watchmen..... do..	7 00	50
Dry-kilnmen..... do..	9 00	60	Engineers..... do..	15 00	50
Engineers..... do..	25 00	60	Laborers..... do..	9 00	50
Laborers..... do..	6 00	60	Apprentices..... do..	3 00	50
Apprentices..... do..	2 50	60	Foremen..... do..	12 50	50
Foremen..... do..	30 00	60			
Carvers..... do..	20 00	60	<b>HUB AND SPOKE FACTORY.</b>		
<b>Grafton, W. Va.:</b>			<b>Metropolis, Ill.:</b>		
Carpenters..... per week.	12 00	60	Turners..... per week.	18 00	60
Plasterers..... do..	18 00	60	Engineers..... do..	15 00	60
Stone-masons..... do..	15 00	60	Machine-turners..... do..	15 00	60
Painters..... do..	18 00	60	Machinists..... do..	12 00	60
Blacksmiths..... do..	12 00	60	Sawyers..... do..	10 00	60
Millers..... do..	12 50	60	Porters..... do..	10 00	60
Brick-molders..... do..	12 00	60	Watchmen..... do..	10 00	60
Brick-layers..... do..	18 00	60	Day-laborers..... do..	9 00	60
Laborers..... do..	9 00	60	Laborers..... do..	7 50	60
Boys..... do..	4 00	60	Boys..... do..	2 40	60
Teamsters..... do..	9 00	60	Foremen..... do..	45 00	60
Clerks..... do..	12 00	60			

NOTE.—The rate of wages for the State of Oregon is computed in United States gold.

Table showing the average wages or earnings of persons employed, &amp;c.—Continued.

Place and occupation.	Wages.	Hours per week.	Place and occupation.	Wages.	Hours per week.
<b>HUB AND SPOKE FACTORY—Cont'd.</b>			<b>PAINTING AND GILDING.</b>		
<b>Portsmouth, Ohio:</b>			<b>San Francisco, Cal.:</b>		
Engineers.....per week.	\$15 00	60	Gilders.....per week.	\$21 00	.....
Wheel-makers.....do.	15 00	60	Painters.....do.	21 00	.....
Hub-turners.....do.	15 00	60	Grainers.....do.	25 00	.....
Spoke-turners.....do.	13 00	60	Carpenters.....do.	24 00	.....
Felloe-benders.....do.	14 00	60	Composition and ornament- ing.....per week.	21 00	.....
Hub-mortisers.....do.	12 00	60	Boys.....do.	6 50	.....
Sawyers.....do.	10 00	60			
Laborers.....do.	9 00	60			
Boys.....do.	3 00	60			

NOTE.—Hours of labor per week, 60 and 54.

Table showing the average weekly wages or earnings of persons employed in different occupations, with average number employed in each establishment named, in the year 1874.

No.	Place and occupation.	Wages.	Hours per week.	No.	Place and occupation.	Wages.	Hours per week.
<b>CORSET-FACTORY.</b>				<b>WHOLESALE PAPER-WAREHOUSE.</b>			
<b>New Haven, Conn.:</b>				<b>Chicago, Ill.:</b>			
2	Overseers.....male.	\$50 00	.....	4	Accountants.....	\$20 00	60
	.....female.	12 00	.....	6	Salesmen.....	20 00	60
10	Cutters.....male.	12 00	.....	6	Porters and packers.....	12 00	60
430	Machine-operators.....female.	4 50	.....	4	Teamsters.....	15 00	60
50	Boners.....do.	3 00	.....	5	Paper-rulers.....	15 00	60
6	Trimmers.....do.	6 00	.....				
20	Binders.....do.	6 00	.....	<b>TRUNK-FACTORY.</b>			
120	Finishers.....do.	3 00	.....	<b>Milwaukee, Wis.:</b>			
6	Eyeleters.....do.	5 00	.....	10	Trunk-makers.....	10 00	60
8	Ironers.....	12 00	.....	10	do.....	5 00	60
35		7 00	.....	10	do.....	3 00	60
12	Embroiderers.....do.	4 00	.....	15	do.....	1 50	60
12	Lacers.....do.	3 00	.....				
3	Examiners.....do.	6 00	.....	<b>PRINTING-OFFICE AND BINDERY.</b>			
2	Packers.....male.	12 00	.....	<b>Job-printing office.</b>			
1	Porters.....do.	6 00	.....	<b>Chicago, Ill.:</b>			
1	Watchman.....do.	12 00	.....	1	Foreman printer.....	24 00	50
1	Drayman.....do.	10 00	.....	9	Compositors, (Union).....	21 00	50
1	Tool-maker.....do.	94 00	.....	1	Apprentice, second year.....	10 00	50
1	Engineer.....do.	12 00	.....	1	Head pressman.....	21 00	50
1	Fireman.....do.	12 00	.....	1	Second pressman.....	15 00	50
786				6	Boys.....	{ 4 00 } 7 00	50
<b>UMBRELLA-FACTORY.</b>				<b>Blank-book manufactory.</b>			
<b>New York City, N. Y.:</b>				1	Foreman bindery, (blank- books only).....	24 00	50
36	Sewing parsons.....female.	10 00	58	1	Head finisher.....	24 00	50
2	Foremen.....male.	15 00	58	1	Second finisher.....	18 00	50
7	Boys.....	8 00	58	2	Rulers.....	21 00	50
2	Apprentices.....	3 00	58	3	Forwarders.....	18 00	50
1	Cutter.....	18 00	58	1	Engineer, (printing-office and bindery).....	15 00	50
<b>OIL-MILLS AND FERTILIZER COM- PANY.</b>				2	Blank-book sewers, (girls).....	7 50	50
<b>Selma, Ala.:</b>				6	Miscellaneous work, (small girls).....	{ 3 00 } 5 00	50
2	Pressmen.....	10 50	72	3	Boys, apprentices { 1st year..... 2d year..... 3d year.....	4 00 7 00 10 00	50
1	Fireman.....	9 00	72				
1	Foreman and engineer.....	12 00	72	<b>PUBLISHING COMPANY.</b>			
1	Assistant cooper.....	9 00	72	<b>Portland, Oreg.:</b>			
2	Ginners.....	6 00	72	1	Editor.....	50 00	60
10	Laborers.....	6 00	72	1	Manager.....	40 00	60
<b>PRINTING-PRESSES AND PRINTERS' FURNITURE, MANUFACTORY OF.</b>				2	Reporters.....	25 00	60
<b>Chicago, Ill.:</b>				1	Pressman.....	30 00	60
	Skilled workmen.....	15 00	.....	1	Engineer.....	25 00	60
				1	Foreman.....	35 00	60
				8	Printers.....	27 50	60
				2	Apprentices.....	7 00	60



Table showing the average weekly wages of persons employed in the following occupations in the years named.

[Hours of labor per week, 60.]

Place and occupation.	Wages.	Place and occupation.	Wages.
<b>HARDWARE MANUFACTORY.</b>		<b>AGRICULTURAL-IMPLEMENT FACT'Y—Cont'd.</b>	
Berlin, Conn.—1874:		New Madrid, Mo.—1872:	
Molders, iron .....	\$15 00	Blacksmiths .....	\$18 00
Molders, brass .....	18 00	Blacksmith-helpers .....	9 00
Cupola-tenders .....	12 00	Plow-makers .....	24 00
Annealing-furnace tenders .....	12 00	Carpenters .....	24 00
Filers .....	10 50	Painters .....	24 00
Japanners .....	15 00	Teamsters .....	24 00
Forgers .....	18 00	Apprentices or boys .....	3 00
Helpers .....	10 50		
Grinders .....	12 00	<b>TOBACCO AND CIGAR MANUFACTORY.</b>	
Polishers .....	15 00	Louisiana—1874:	
Turners .....	12 00	Cigar-makers .....	15 00
Machinists .....	18 00	Strippers .....	15 00
Engineers .....	12 00		
Furnace-men .....	9 00	<b>COTTON-GINNING.</b>	
Laborers .....	9 00	Louisiana—1874:	
Packers .....	12 00	Ginners and balers .....	12 00
Press-workmen .....	12 00	Engineers .....	15 00
Rollers .....	15 00	Laborers .....	9 00
Welders .....	15 00	Foremen .....	20 00
Jointers .....	12 00		
Stampers .....	12 00	<b>CORNICE-MANUFACTORY.</b>	
Graduators .....	15 00	Ohio—1873:	
Finishers .....	12 00	Cornice-manufacturers .....	12 00
Pattern-makers .....	24 00	Tinners .....	15 00
Carpenters .....	18 00	Slate-roofers .....	24 00
Trip-hammer-men .....	18 00	Laborers .....	11 00
Fitters-up .....	12 00	Apprentices .....	5 00
Screw-cutters .....	15 00	Foremen .....	30 00
Blacksmiths .....	15 00		
Helpers .....	9 00	<b>PAPER-MAKING MACHINERY.</b>	
Foremen .....	18 00	Vermont—1874:	
Apprentices or boys .....	7 50	Iron-molders .....	30 00
Girls .....	4 50	Machinists { Best .....	15 00
Waterbury, Conn.—1874:		Machinists { Ordinary .....	12 00
Annealing-furnace tenders .....	12 00	Helpers .....	9 00
Filers .....	9 00		
Forgers .....	18 00	<b>SCALE-MANUFACTORY.*</b>	
Helpers .....	10 50	Vermont—1874:	
Machinists .....	18 00	Iron-molders .....	15 00
Engineers .....	17 00	Mechanics .....	13 50
Furnace-men .....	18 00	Joiners .....	13 50
Laborers .....	9 00	Painters .....	12 00
Packers .....	15 00	Engineers .....	12 00
Die-makers .....	18 00	Laborers .....	9 00
Press-workmen .....	12 00	Foremen .....	25 00
Rollers .....	18 00		
Jointers .....	15 00	<b>HARNESS-MAKING.</b>	
Stampers .....	10 50	Vermont—1874:	
Carpenters .....	12 00	Harness-makers .....	10 00
Blacksmiths .....	18 00	Harness-fitters .....	14 00
Helpers .....	10 50	Harness-stitchers .....	8 50
Foremen .....	20 00	Apprentices .....	6 50
Apprentices or boys .....	4 50		
<b>AGRICULTURAL-IMPLEMENT FACTORY.</b>		<b>COOPERAGE.</b>	
Phillipsburgh, N. J.—1873:		Indiana—1874:	
Molders .....	15 00	Coopers .....	11 55
Machinists .....	15 00	Machine-hands .....	12 00
Blacksmiths .....	15 00	Machine-boys .....	5 00
Blacksmith-helpers .....	9 00	Draymen .....	10 00
Grinders .....	9 00	Engineers .....	13 50
Wood-workers .....	15 00	Laborers .....	7 00
Plow-makers .....	15 00	Foremen .....	22 00
Pattern-makers .....	16 50		
Carpenters .....	16 50	<b>CIGAR-MANUFACTORY.</b>	
Painters .....	12 00	Vermont—1874:	
Engineers .....	12 00	Cigar-makers, (\$11 to \$15 per M) .....	18 00
Watchmen .....	8 50	Strippers .....	8 50
Teamsters .....	10 50	Casars .....	20 00
Laborers or unskilled workmen .....	9 00	Packers .....	20 00
Apprentices or boys .....	5 00		
Foremen or overseers .....	18 00		

\* Hours of labor per week, 59.

## WAGES IN CALIFORNIA IN 1869 AND 1874.

Statement showing the wages paid in San Francisco and vicinity in the years 1869 and 1874, for the following kinds of labor.

[The table of wages for the year 1874 was prepared for this report by Mr. W. H. Martin, general agent of the California Immigrant Union, January, 1875.]

Occupation.	Wages in 1869.	Wages in 1874.
Apothecaries..... per month, with board.	\$40 00 to \$50 00	-----
Architects, (special rates or commission.)		
Bakers..... per month, with board.	30 00 to 50 00	\$40 00 to \$60 00
Barbers..... per month.	80 00	60 00 to 80 00
Bar-tenders..... per month, with board.	40 00 to 45 00	-----
Bed-makers..... do.	25 00 to 35 00	-----
Bell-hangers..... per day.	2 50 to 3 00	2 50 to 3 50
Bolt-makers..... do.		2 50 to 3 50
Blacksmiths..... do.	2 50 to 4 00	3 00 to 4 00
Blacksmiths' helpers..... do.	2 00 to 2 50	2 00 to 2 50
Boat-builders..... do.		3 00 to 3 50
Boiler-makers..... do.		3 75 to 4 00
Boiler-makers, flange-turners..... do.		4 00 to 4 25
Book-binders..... do.		4 00 to 5 00
Book-binders' helpers, boys and girls..... per week.		4 00 to 15 00
Book-keepers..... per month.	35 00 to 100 00	80 00 to 200 00
Book-keepers in banks and brokers' offices..... do.		200 00 to 350 00
Boot and shoe making, (see Shoemakers.)		
Boot-blacks..... do.	45 00	30 00 to 45 00
Bottlers..... do.	35 00 to 40 00	
Box-makers..... per day.		2 50 to 3 00
Brick-layers..... do.	4 50 to 6 00	4 00 to 5 00
Brick-layers, foremen..... do.		6 00 to 8 00
Butchers..... per month, with board.	35 00 to 60 00	40 00 to 75 00
Brewers..... do.	50 00	50 00 to 75 00
Broom-makers..... per day.		2 50 to 3 50
Butter-makers..... per month and found.	30 00 to 45 00	40 00 to 50 00
Brick-makers..... do.	35 00 to 60 00	40 00 to 60 00
Boys in offices and stores..... per month.	10 00 to 40 00	20 00 to 40 00
Carpenters, house..... per day.	3 00 to 4 00	3 50 to 4 50
Carpenters, foremen..... do.		4 50 to 6 00
Carpenters, ship..... do.	3 00 to 5 00	4 00 to 5 00
Carpenters, ship, foremen..... do.		5 00 to 7 50
Cabinet-makers..... do.	3 00 to 4 00	3 00 to 4 00
Carriage-makers, body-makers..... do.	3 00 to 4 00	3 00 to 4 00
wheelwrights..... do.	3 00 to 4 00	3 00 to 3 50
trimmers..... do.	3 00 to 4 50	3 50 to 4 50
painters..... do.	3 00 to 4 00	2 50 to 4 00
stripers..... do.		4 00 to 4 50
Carvers..... do.		4 00 to 7 00
Calkers..... do.	3 00 to 4 00	4 00 to 5 00
Coopers..... do.	2 00 to 3 25	2 50 to 4 00
Confectioners..... do.		3 00 to 4 00
Coppersmiths..... do.	3 00 to 4 50	3 50 to 5 00
Coffin-makers..... do.	2 50 to 4 50	3 00 to 4 50
Clerks..... do.		2 00 to 3 50
Clerks..... per month, with board.	40 00 to 75 00	-----
Charcoal-burners..... per day.		2 00 to 3 50
Cheese-makers..... do.		2 00 to 3 00
Coachmen..... per month, with board.	30 00 to 75 00	35 00 to 50 00
Cooks..... do.	35 00 to 100 00	35 00 to 100 00
Cooks in private families..... do.		30 00 to 35 00
Cooks in hotels..... do.		40 00 to 100 00
Cigar-makers..... per day.		1 50 to 3 00
Conductors, horse-cars..... do.		2 50
Conductors, steam-cars..... do.		3 00 to 5 00
Chambermaids in families..... per month, with board.		15 00 to 20 00
Chambermaids in hotels..... do.		20 00 to 25 00
Dress-makers in stores..... per week.		10 00 to 12 00
Dress-makers in families..... per day, with board.		1 50 to 3 00
Dairymen..... per month, with board.	30 00 to 45 00	35 00 to 40 00
Drivers, horse-cars..... per day.		2 50
Drivers, drays and trucks..... do.		2 50 to 3 00
Drivers, express..... do.		2 00 to 3 00
Drivers, hacks..... do.		2 00 to 3 50
Door and sash makers..... do.	2 50 to 4 00	3 00 to 4 50
Druggists..... per month, with board.	60 00	60 00 to 75 00
Dyers..... do.	40 00 to 50 00	45 00 to 60 00
Deck-hands..... do.	40 00	40 00 to 50 00
Editors, first-class..... per month.		200 00 to 250 00
Editors, second-class..... do.		75 00 to 100 00
Engravers..... per day.		4 50 to 6 00
Engineers, mills..... do.	4 00 to 5 00	3 00 to 5 00
Engineers, railroads..... do.		3 00 to 4 00

Statement showing the wages paid in San Francisco and vicinity, &amp;c.—Continued.

Occupation.	Wages in 1869.	Wages in 1874.
Engineers, steamships, &c. .... per day .....	.....	\$3 00 to \$5 00
Farm-laborers { Winter. .... per month, with board .....	\$30 00	25 00 to 30 00
Summer. .... do. ....	\$40 00 to 50 00	40 00 to 50 00
Florists ..... do. ....	.....	35 00 to 50 00
Foundrymen ..... per day .....	2 00 to 2 50	3 00 to 4 50
Foundrymen, molders ..... do. ....	3 50 to 4 00	4 50 to 5 00
Foundrymen, stove-mounters ..... do. ....	.....	3 00 to 3 50
Foundrymen, brass ..... do. ....	.....	3 00 to 4 00
Gardeners ..... per month, with board .....	30 00 to 40 00	45 00 to 60 00
Gardeners, short jobs ..... per day .....	.....	2 50 to 3 00
Gas-fitters ..... do. ....	3 50 to 4 50	3 00 to 4 50
Gunsmiths ..... do. ....	3 00 to 5 00	3 00 to 5 00
Gilders ..... do. ....	.....	3 50 to 5 00
Glaziers ..... do. ....	.....	2 00 to 3 50
Harness-makers ..... do. ....	.....	2 50 to 5 00
Hatters ..... do. ....	.....	3 00 to 4 00
Hostlers ..... per month, with board .....	.....	30 00 to 40 00
Jewelers ..... per day .....	.....	3 50 to 4 00
Laundrymen ..... per month, with board .....	30 00 to 45 00	30 00 to 40 00
Laundrywomen ..... do. ....	.....	30 00 to 40 00
Locksmiths ..... per day .....	3 00 to 4 00	3 00 to 4 00
Lithographers, draughtsmen, and engineers ..... do. ....	.....	4 00 to 5 00
Lithographers, printers ..... do. ....	.....	4 00 to 4 50
Lumbermen ..... per month, with board .....	35 00 to 70 00	30 00 to 50 00
Machinists ..... per day .....	3 50 to 4 50	3 00 to 5 00
Masons ..... do. ....	4 00 to 5 00	4 00 to 5 00
Masons, foremen ..... do. ....	.....	6 00 to 7 50
Model or pattern makers ..... do. ....	4 00 to 4 50	4 00 to 5 00
Millers ..... do. ....	3 00 to 4 00	3 00 to 4 00
Millwrights ..... do. ....	3 00 to 5 00	3 00 to 5 00
Miners ..... do. ....	2 00 to 3 50	3 00 to 4 00
Milliners ..... do. ....	.....	1 50 to 3 50
Nurses ..... do. ....	.....	1 00 to 2 00
Pointers, house ..... do. ....	2 50 to 4 00	3 50 to 4 00
Painters, ship ..... do. ....	.....	3 00 to 4 00
Paper-hangers ..... do. ....	2 50 to 3 50	2 50 to 3 50
Plasterers ..... do. ....	4 00 to 6 00	4 00 to 5 00
Plumbers ..... do. ....	.....	4 00 to 5 00
Porters ..... per month, with board .....	30 00 to 55 00	30 00 to 50 00
Piano-makers ..... per day .....	.....	4 00 to 4 50
Printers, job ..... do. ....	.....	3 50 to 4 00
Printers, foremen ..... do. ....	.....	4 50 to 5 00
Police-men ..... per month .....	.....	1 25 00
Riggers ..... per day .....	.....	4 00 to 5 00
Saddlers ..... do. ....	.....	3 00 to 5 00
Sail-makers ..... do. ....	.....	3 00 to 4 00
Sailors, long-voyage ..... per month .....	.....	30 00 to 35 00
Sailors, coasters ..... do. ....	.....	40 00 to 45 00
Salesmen ..... per day .....	.....	2 50 to 4 50
Shipsmiths ..... do. ....	4 00	3 00 to 4 00
Servants, general housework ..... per month .....	.....	15 00 to 20 00
Sawyers ..... do. ....	40 00 to 100 00	40 00 to 70 00
Shoemakers ..... per day .....	.....	2 00 to 4 00
Shepherds ..... per month, with board .....	25 00 to 35 00	25 00 to 35 00
Soap-makers ..... do. ....	35 00 to 40 00	35 00 to 45 00
Stone-cutters ..... per day .....	4 00 to 5 00	4 00 to 5 00
Straw-workers ..... do. ....	.....	1 50 to 3 00
Tailors, pants ..... each .....	.....	3 00 to 5 00
Tailors, vests ..... do. ....	.....	2 00 to 3 50
Tailors, coats ..... do. ....	.....	6 00 to 10 00
Turners ..... per day .....	3 50 to 4 00	3 50 to 4 00
Trunk-makers ..... do. ....	2 50 to 3 00	2 50 to 4 00
Tinsmiths ..... do. ....	3 00 to 4 00	2 50 to 3 50
Teamsters owning teams ..... do. ....	.....	2 50 to 4 00
Teamsters ..... per month .....	.....	30 00 to 50 00
Teachers, (full supply male and female from our own schools) ..... do. ....	.....	45 00 to 200 00
Upholsterers ..... per day .....	3 00 to 4 00	3 50 to 5 50
Vineyard-men ..... per month, with board .....	30 00 to 40 00	30 00 to 40 00
Wagon-makers ..... per day .....	3 00 to 4 00	3 00 to 4 00
Watchmen ..... per month .....	50 00 to 75 00	50 00 to 75 00
Wood-choppers ..... do. ....	40 00 to 70 00	40 00 to 50 00
Waiters ..... per month, with board .....	20 00 to 40 00	20 00 to 40 00
Watch-makers ..... per day .....	.....	3 00 to 4 50
Whip-makers ..... do. ....	3 00	.....
Whitewashers ..... do. ....	3 00	.....

Young men of energy, not afraid of work, can almost always get employment in the country at from \$25 to \$30 per month.

The foregoing prices are in gold coin.

REMARKS.—It is much easier to get employment in rough or mechanical work than in clerking, keeping books, or in school-teaching; and persons who have no money and

no friends in California able to assist them, and no special knowledge that will certainly command employment, should not come here in the expectation of an easy life. Men who expect to make their living by the shovel, plow, and ax are wanted.

Teachers should disabuse their minds in reference to our educational affairs. We have the best schools and teachers in the Union. Our teachers are mostly graduates of our high schools and State normal schools, and we get a new supply from these sources every year. These are well paid, and as long as they keep up to the standard it would be folly in us to advise our friends in the East to come here expecting to get positions as teachers.

Chinamen work willingly for 75 cents to \$1 per day. We have a large supply, and they soon learn and perfect themselves in any department of business. They are a necessary evil at present, for the reason that most of the young men of our State, and new-comers generally, will not work for small wages. As soon as this is remedied by an importation of Eastern and European labor willing to work for \$1 to \$1.50 per day, the employment of Chinese will gradually be diminished.

W. H. M.

### WAGES PAID BY RAILROAD COMPANIES.

*Statement showing the average weekly wages of persons employed by railroad companies in the following States in the year 1874.*

Occupation.	Maine.	Massachusetts.	Pennsylvania.	Illinois.	Indiana.	Kentucky.	Missouri.	General average.
Machinists .....	\$12 00	\$14 25	\$15 00	\$19 50	\$16 50	\$15 00	\$16 20	\$15 49
Boiler-makers .....	12 00	15 50	.....	13 00	14 85	14 00	16 80	14 35
Blacksmiths .....	12 00	10 00	13 00	13 00	17 25	15 75	18 90	15 45
Car-builders .....	13 50	14 50	12 43	15 60	16 50	14 40	15 60	14 64
Painters .....	16 50	14 50	12 30	17 41	16 60	11 40	15 00	14 84
Engineers .....	15 00	23 00	13 00	25 00	23 70	.....	32 00	21 78
Firemen .....	10 00	12 00	.....	.....	10 50	.....	.....	10 83
Pattern-makers .....	12 00	.....	.....	19 56	.....	.....	17 25	16 27
Laborers .....	7 50	.....	9 00	10 00	10 30	9 00	7 50	8 86
Apprentices .....	5 00	.....	4 80	9 60	.....	.....	.....	7 13
Conductors .....	15 00	.....	.....	.....	17 00	.....	23 00	18 33
Baggage-masters .....	9 60	.....	.....	.....	12 30	.....	14 00	11 30
Brakemen .....	9 60	.....	.....	.....	15 50	.....	12 00	12 36
Hours of labor per week .....	.....	.....	60	59	.....	.....	.....	.....

Occupation.	Saint Louis, Iron Mountain, and Southern Railroad Company.	New York, Providence and Boston.	Rome, Watertown and Ogdensburg Railroad.	Occupation.	Saint Louis, Iron Mountain, and Southern Railroad Company.	New York, Providence and Boston.	Rome, Watertown and Ogdensburg Railroad.
Machinists .....	\$18 90	\$16 50	\$18 00	Pattern-makers .....	\$17 00	.....	.....
Boiler-makers .....	18 00	.....	18 00	Laborers .....	10 00	\$9 00	\$9 00
Blacksmiths .....	17 00	.....	13 00	Apprentices .....	7 50	.....	.....
Car-builders .....	18 00	.....	.....	Conductors .....	21 00	.....	.....
Painters .....	14 76	.....	.....	Baggage-men .....	12 50	.....	.....
Engineers .....	21 54	.....	19 50	Brakemen .....	12 00	.....	.....
Firemen .....	12 30	.....	.....	.....	.....	.....	.....

*Statement showing the average weekly wages of persons employed in the Baltimore and Ohio Railroad Company's rolling-mills at Cumberland, Md., in the year 1874.*

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
Puddlers .....	\$20 00	Buggymen .....	\$16 00
Puddlers' helpers .....	11 50	Dragouts .....	11 50
Heaters .....	22 00	Chargers and pull-outs .....	11 50
Heaters' helpers .....	11 00	Punchers .....	23 00
Rollers .....	34 00	Straighteners .....	19 00
Roughers .....	22 00	Engineers .....	13 50
Catchers .....	20 50	Laborers or unskilled workmen .....	9 00
Hookers .....	18 00	Sawyers .....	12 50

Table showing the average weekly wages of persons employed by railroad companies in the following States in the years 1874 and 1875.

[Hours of labor per week, 60.]

Department and occupation.	Wages paid by railroad companies in Pennsylvania, Tennessee, Iowa, and Oregon in the years 1874 and 1875.				Wages paid in railroad, locomotive, and car shops in Kansas in the year 1874.			
	Pennsylvania, 1874.	Tennessee, 1874.	Iowa, 1875.	Oregon, 1875.	Kansas City, Saint Joseph and Council Bluffs Railroad.	Atchison and Nebraska Railroad.	Missouri River, Fort Scott and Gulf Railroad.	Lawrence and Galveston Railroad.
<b>LOCOMOTIVE DEPARTMENT.</b>								
Machinists.....	\$12 00	\$28 00	\$15 99	\$19 50	\$16 08	\$16 20	\$16 50	\$16 25
Flue-setters.....	12 00				16 50	16 20		
Tanks.....	12 00	8 75						
Air-brakes.....	12 50							
Wipers.....	6 00	7 50	9 00	*14 00	*10 50	8 40	2 10	8 10
Water-house.....	None.		10 00	*10 00				
Stationary engineers.....	9 60	15 00	12 00	15 00		12 00	12 00	11 70
Watchmen.....	8 40	10 00	9 00	*17 50	*14 77		10 00	10 00
Oilers.....	10 00					12 00	10 30	
Laborers.....	7 00	6 00	9 00	10 50	9 00	6 60	7 50	7 50
Blacksmiths.....	14 00	22 50	15 30	21 00	17 70	13 50	16 80	19 20
Blacksmiths' helpers.....	7 00	13 30	11 10	13 50	10 80	10 80	10 50	10 50
Forgers.....	18 00							
Heaters.....	18 00		10 50					
Boiler-makers.....	13 00	24 00	15 00		13 50	16 20	17 40	15 30
Stack-makers.....	12 00		15 00					
Coppersmiths.....	14 00	15 00	18 00			15 00		
Carpenters.....	11 00	13 75	14 64				16 20	
Pattern-makers.....	12 60	24 00	16 80			None.	18 00	
<b>CAR DEPARTMENT.</b>								
Carpenters.....	11 50	16 50	14 88	21 00	15 40	16 20	16 20	15 37
Repairers.....	10 00	10 50	11 40	18 00	13 86	15 00	11 10	
Laborers and car-cleaners.....	7 00	6 00	9 00	10 50	9 00		7 50	7 50
Cabinet-makers.....	12 00			24 00				
Oilers.....	10 00	11 40	9 00		12 00		10 30	3 50
Machinists.....	11 00	18 00		19 50			16 50	
Locksmiths.....	13 00							
Tinners.....	11 25	19 50			12 75		15 00	
Pattern-makers.....	12 00	24 00		24 00	20 00	None.	18 00	
Blacksmiths.....	11 60	18 00	16 50	21 00			16 80	
Blacksmiths' helpers.....	6 80	11 40	9 00	13 50			10 50	
Painters.....	11 00	18 00	13 14	24 00	14 08	18 00	14 40	15 37
Gilders.....	12 00							
Upholsterers.....	11 50	18 00			12 00	None.	19 50	
Apprentices or boys.....							5 70	3 00
<b>TRACK DEPARTMENT.</b>								
Yard-laborers.....	6 00	6 00	7 50	15 16	2 15	6 60		6 90
Yard-section laborers.....	6 00	4 80	7 50	10 50	2 15	6 30	6 60	6 60
Construction-train.....	6 00	3 90	9 60	6 00	9 30	6 60		
Extra gang.....	6 00		9 00		9 30	6 60		
<b>BRIDGE DEPARTMENT.</b>								
Bridge-carpenters.....		13 50	15 00	18 00	14 65	13 50	15 30	15 30
Engineer pile-drivers.....				18 00				6 00
<b>STATIONS.</b>								
Station-laborers.....	9 00	5 40		12 00	9 00	8 40		
Stevedores.....	None.							
Scalemen.....	None.							
Laborers at small stations.....	8 00	5 40			9 00	10 00		
Apprentices or boys.....		7 02						
Foremen or overseers.....		24 00				45 00		

\* Seven days.

† One foreman.

Table showing the number of persons employed and the average rate of wages per annum paid employes by the following railroad companies for the year ending June 30, 1874.

Occupation.	Cairo and Saint Louis Railroad Company.		Cairo and Vincennes Railroad Company.		Carbondale and Shawneetown Railroad Company.		Chicago and Alton Railroad Company.	
	No.	Wages.	No.	Wages.	No.	Wages.	No.	Wages.
Superintendents .....							4	\$2,575 00
Clerks .....	4	\$780 00	2	\$949 98	1	\$500 00	125	624 00
Master mechanics .....	1	1,200 00	1	1,500 00			2	1,500 00
Conductors .....	9	860 40	5	1,080 00	1	1,200 00	111	975 00
Engineers .....	14	898 50	6	996 00	1	1,200 00	139	1,008 00
Brakemen .....	22	542 70	8	525 00	2	500 00	232	540 00
Flagmen, switch-tenders, gate-keepers, and watchmen .....	4	474 00	4	645 00	1	500 00	76	485 00
Station-agents .....	14	637 30	28		2	600 00	122	634 00
Section-men .....	85	562 80	25	*17 00	7	345 00	1,254	327 00
Laborers .....	51	629 60	162	†1 25			117	500 00
Other employes .....	47	538 80	65				1,137	696 60

Occupation.	Chicago and Illinois Southern Railroad Company.		Chicago and Iowa Railroad Company.		Chicago and Pacific Railroad Company.		Chicago, Pekin and Southwestern Railroad Company.	
	No.	Wages.	No.	Wages.	No.	Wages.	No.	Wages.
Superintendents .....			1	\$900 00	1	\$2,500 00		
Clerks .....			5	750 00	3	1,000 00	2	\$340 00
Master mechanics .....			6	765 00	1	1,200 00	2	240 00
Conductors .....	1	\$960 00	10	954 00	4	700 00	2	780 00
Engineers .....	1	1,380 00	14	1,042 63	4	1,200 00	2	1,000 00
Brakemen .....	2	460 00	18	575 00	7	540 00	4	540 00
Flagmen, switch-tenders, gate-keepers, and watchmen .....			4	675 00	7	800 00	2	540 00
Station-agents .....	1	460 00	15	660 00	10	600 00	13	450 00
Section-men .....	6	480 00	91	440 00	40	500 00	50	420 00
Laborers .....	20	460 00	18	480 00	50	450 00	2	540 00
Other employes .....			34	501 23	20	600 00	3	124 00

Occupation.	Chicago, Rock Island and Pacific Railroad Company.		Evansville, Terre Haute and Chicago Railroad Company.		Illinois & Saint Louis Railroad and Coal Company.		Indianapolis, Bloomington & Western Railroad Company.	
	No.	Wages.	No.	Wages.	No.	Wages.	No.	Wages.
Superintendents .....	2	\$3,000 00					1	\$2,400 00
Clerks .....	131	828 72	2	\$900 00	6	\$485 00	27	635 00
Master mechanics .....	12	1,500 00	1	918 00	7	1,030 85	3	1,346 00
Conductors .....	92	825 00	4	800 00	3	1,000 00	35	900 00
Engineers .....	155	1,036 00	4	1,215 00	4	1,002 00	62	1,080 00
Brakemen .....	223	540 00	6	540 00	7	624 00	76	540 00
Flagmen, switch-tenders, gate-keepers, and watchmen .....	153	680 00	3	360 00			40	490 00
Station-agents .....	96	731 75	14	482 50			65	570 00
Section-men .....	904	375 00	24	481 30			421	420 00
Laborers .....	625	436 68	15	483 00	14	696 00	490	540 00
Other employes .....	1,528	600 78	34	736 40				

\*Per month.

†Per day.

Table showing the number of persons employed and the average rate of wages, &amp;c.—Continued.

Occupation.	Indianapolis and Saint Louis Railroad Company.		Lafayette, Bloomington and Mississippi Railroad Company.		Lake Shore and Michigan Southern Railroad Company.		Paris and Danville Railroad Company.	
	No.	Wages.	No.	Wages.	No.	Wages.	No.	Wages.
Superintendents .....	75	\$810 84	1	\$289 80	9	\$2,254 00	---	---
Clerks .....	290	512 76	5	324 26	404	712 00	---	---
Master mechanics .....	40	898 28	---	---	8	1,880 00	---	---
Conductors .....	54	1,173 72	5	612 79	334	915 00	2	\$900 00
Engineers .....	97	375 24	9	291 76	467	1,021 00	2	1,950 00
Brakemen .....	86	461 04	---	---	596	540 00	4	540 00
Flagmen, switch-tenders, gate-keepers, and watchmen .....	46	681 96	---	---	591	496 00	---	---
Station-agents .....	378	342 24	12	635 17	900	728 00	6	41 66
Section-men .....	38	604 76	6	459 00	4,245	443 00	20	420 00
Laborers .....	173	548 40	2	453 00	1,583	543 00	6	500 00
Other employes .....	---	---	---	---	---	---	---	---

Occupation.	Paris and Decatur Railroad Company.		Peoria and Rock Island Railroad Company.		Quincy, Alton & Saint Louis Railroad Company.		Rockford, Rock Island and Saint Louis Railroad Company.	
	No.	Wages.	No.	Wages.	No.	Wages.	No.	Wages.
Superintendents .....	1	\$1,200 00	1	\$1,200 00	---	---	1	\$2,500
Clerks .....	5	730 00	6	670 00	1	\$900 00	7	\$400 to 1,000
Master mechanics .....	6	1,000 00	13	905 40	1	750 00	4	1,200 to 1,600
Conductors .....	6	840 00	6	972 00	3	1,000 00	---	900 to 1,000
Engineers .....	10	1,200 00	8	1,100 00	3	1,000 00	---	1,000 to 1,500
Brakemen .....	12	600 00	8	600 00	6	550 00	---	600
Flagmen, switch-tenders, gate-keepers, and watchmen .....	2	480 00	4	396 00	1	500 00	---	500 to 600
Station-agents .....	19	600 00	17	730 00	7	600 00	---	500 to 600
Section-men .....	110	540 00	68	404 45	35	405 00	---	\$1.25 per day.
Laborers .....	10	540 00	18	313 33	---	---	---	---
Other employes .....	30	750 00	22	500 00	15	540 00	---	---

Occupation.	Saint Louis, Alton and Terre Haute Railroad Company.		Sycamore and Cortland Railroad Company.		Western Union Railroad Company.		General average.	
	No.	Wages.	No.	Wages.	No.	Wages.	No.	Wages.
Superintendents .....	2	\$1,500 00	---	---	1	\$1,320 00	---	\$1,600 23
Clerks .....	8	830 00	1	\$600 00	41	691 70	---	734 78
Master mechanics .....	43	698 00	---	---	3	1,500 00	---	1,170 33
Conductors .....	7	1,148 00	1	600 00	30	898 00	---	906 04
Engineers .....	11	1,030 00	1	600 00	31	1,098 28	---	1,081 28
Brakemen .....	18	613 00	1	600 00	60	565 00	---	536 50
Flagmen, switch-tenders, gate-keepers, and watchmen .....	6	780 00	1	600 00	17	534 66	---	548 24
Station-agents .....	20	570 00	1	600 00	43	686 05	---	583 25
Section men .....	109	336 00	6	600 00	215	416 85	---	404 53
Laborers .....	23	476 00	---	---	68	469 17	---	429 36
Other employes .....	90	534 00	---	---	168	702 60	---	554 30

Table showing the average weekly wages or earnings of railroad-employees in the cities of Bangor, Me., and Chicago, Ill.

Occupation.	Bangor, Me.	Chicago, Ill.	Occupation.	Bangor, Me.	Chicago, Ill.
<b>Locomotive department:</b>			<b>Car department—Continued.</b>		
Machinists.....	\$13 00	\$13 25	Machinists.....	\$13 00	\$13 95
Flue-setters.....		14 70	Locksmiths.....		16 32
Men at tanks.....		14 25	Tinners.....		18 60
Men at air-brakes.....		8 40	Pattern-makers.....		14 85
Wipers.....	7 50	7 50	Blacksmiths.....	13 50	15 00
Men at water-house.....		10 50	Helpers.....		8 55
Stationary engineers.....	10 20	11 85	Painters.....	12 75	13 80
Watchmen.....	13 00	8 25	Gilders.....		18 30
Oilers.....		9 00	Upholsterers.....	10 50	16 04
Laborers.....		7 50			
Blacksmiths.....	13 50	16 50	<b>Track department:</b>		
Helpers.....		9 45	Yard-laborers.....	7 50	7 50
Forgers.....		24 00	Yard section-laborers.....	7 50	7 50
Heaters.....		13 00	Construction-train.....		8 25
Boiler-makers.....		14 70	Extra gang.....		8 25
Stack-makers.....		12 37			
Coppersmiths.....		13 20	<b>Bridge department:</b>		
Carpenters.....	10 50	13 50	Bridge-carpenters.....	13 50	19 00
Pattern-makers.....		11 40	Engineer pile-drivers.....		15 00
Brass-molders.....		15 30			
<b>Car department:</b>			<b>Stations:</b>		
Carpenters.....	10 50	12 90	Station-laborers.....	9 00	9 00
Repairers.....		12 45	Stevedores.....		10 50
Laborers.....		8 40	Scalemen.....		10 50
Cabinet-makers.....		14 25	Laborers at small stations.....	7 50	8 25
Oilers.....		11 40	Station-agents.....	19 00	.....

## IRON-FOUNDRY AND MACHINE-SHOP.

Table showing the average weekly wages or earnings of persons employed in an iron-foundry and machine-shop at Salt Lake City, Utah, in the year 1875.

(All persons employed in this factory are paid by the hour, and work from 58 to 60 hours per week.)

Occupation.	Wages.	Articles produced.
Iron-molders.....	\$18 00, \$21 00 to \$24 00	General machinery; smelting-furnace castings; iron-work for mines; any machine-work that parties are willing to pay for at about 25 per cent. above Eastern cost and freight.
Machinists, { Best.....	21 00	
{ Ordinary.....	18 00	
{ Inferior.....	15 00	
Blacksmiths.....	21 00	
Helpers.....	12 00	
Foremen.....	22 50	
Pattern-makers and carpenters.....	15 00, 18 00 to 21 00	
Apprentices.....	3 00 to 12 00	

## FURNITURE-MANUFACTURE.

Table showing the average weekly wages or earnings of persons employed in the manufacture of furniture in Vermont and in Utah in the year 1874.

Occupation.	Vermont.	Utah.	Occupation.	Vermont.	Utah.
Cabinet-makers.....	\$15 00	\$18 00	Varnishers.....	\$15 00	\$18 00
Chair-makers.....		18 00	Scroll-sawyers.....	18 00	18 00
Carvers.....	18 00	18 00	Laborers.....	12 00	13 00
Turners.....	16 00	18 00	Apprentices.....	7 50	10 00
Painters.....		18 00	Clerks.....		25 00
Upholsterers.....	18 00	18 00			



## PAPER-MANUFACTURING.

Table showing the average weekly wages of persons employed in paper-mills in the following towns in the year 1873.

Occupation.	Belfast, Me. (working 72 hours per week.)	New Haven, Conn., (working 72 hours per week.)	Dorlan's Mills, Pa., (working 70 hours per week.)	Niagara Falls, N. Y., (working 60 to 72 hours per week.)	Cuyahoga Falls, Ohio.	Dayton, Ohio, (working 60 hrs. per week.)	Average.
Machine-tenders .....	\$18 00	\$18 00	\$12 00	.....	\$11 00	\$15 00	\$14 80
Assistant tenders .....	12 00	.....	.....	.....	.....	.....	12 00
Machinists .....	18 00	15 00	.....	\$15 00	.....	.....	16 00
Engineers .....	12 00	15 00	12 00	12 00	15 00	.....	13 20
Foremen .....	.....	.....	.....	15 00	15 00	25 00	12 23
Cutters .....	10 50	.....	.....	10 00	.....	.....	10 25
Bleachers .....	10 50	.....	.....	10 00	.....	.....	10 25
Firemen .....	10 00	.....	.....	12 00	.....	.....	11 00
Laborers .....	9 00	10 50	6 00	9 00	10 00	12 00	9 42
Boys .....	7 00	.....	.....	6 00	5 00	5 00	5 73
Rag-cleaners .....	.....	.....	5 00	.....	.....	.....	5 08
Rag-sorters, (women and girls) .....	.....	4 75	.....	5 00	5 00	5 00	4 94

## PIANO-FORTE MANUFACTURE.

Table showing the average weekly wages or earnings of persons employed in piano-forte manufactories in Boston, Mass., and St. Louis, Mo.

(Hours of labor per week, 60.)

Occupation.	Boston, Mass.	St. Louis, Mo.	Occupation.	Boston, Mass.	St. Louis, Mo.
Case-makers .....	\$30 00	\$25 00	Gilders .....	\$19 00	\$20 00
Action-makers .....	20 00	24 00	Regulators .....	24 00	30 00
Key-makers .....	22 00	30 00	Packers .....	12 00	14 00
Tuners of reeds .....	26 00	31 00	Gig-sawyers .....	18 00	20 00
Fly-finishers .....	22 00	26 00	Engineers .....	18 00	20 00
Varnishers .....	13 00	18 00	Laborers .....	10 00	12 00
Reed-makers .....	20 00	25 00	Apprentices .....	6 00	5 00
Reed-board makers .....	19 00	22 00	Foremen .....	20 00	25 00
Carvers .....	24 00	30 00	Teamsters .....	13 00	15 00
Trimming-makers .....	18 00	20 00	Clerks .....	14 00	18 00
Blacksmiths .....	18 00	19 00	Book-keepers .....	14 00	18 00

## THE SILK INDUSTRY IN AMERICA.

As the rapid growth and great importance of the silk industry seem to require that some account be given of its rise and development in the United States, the following article, prepared by Franklin Allen, esquire, secretary of the Silk Association of America, is presented:

Silk is of Chinese origin; and the silk-worm is indigenous to China and Japan, where it doubtless fed and spun for ages uncared for by man. The annals of the former country attribute its discovery to the Emperor Fan Hi, who is said to have first employed silk in the manufacture of a musical instrument of his own invention 3,400 years previous to the Christian era. The Empress Si Ling Chi, it is alleged, invented silk tissues 2650 years B. C.; and so important were her services considered, that she was placed among the Chinese divinities, and sacrifices annually made to her memory. At a very early day the Chinese had a large traffic in silk with Persia, Greece, and Arabia. It is about fourteen centuries since the production of silk was originally introduced into Europe. A few silk-worm eggs were concealed in the hollow of a bamboo by two monks and brought to Constantinople; but its cultivation was at first slow, as the Chinese were forbidden to reveal the secrets of its production under the penalty of death.

The principal seats of the silk industry in this country are Hartford, Manchester, and Willimantic, Conn.; Paterson, N. J.; New York City; and Philadelphia, Pa. There are also factories at Mansfield, Middletown, Rockville, Watertown, and Norwich, Conn.; Florence, Northampton, Holyoke, and Canton, Mass.; Yonkers, on the Hudson, Oneida, and Sauquoit, near Utica, N. Y.; College Point, Williamsburgh, and Brooklyn, Long Island; Scranton, Pa.; Antrim, N. H.; Brattleborough, Vt.; Williamsburgh, Kans.; San Francisco, Cal.; and in several other localities.

Within the last thirty-five years there have been many vicissitudes attending the silk manufacture in the United States, commencing with the disastrous and mad speculation in mulberry-trees and silk cocoons in 1839 and 1840. But the domestic silk trade of America is now sufficiently established to afford every encouragement for its continued and greatly-increased prosperity in the future. We already find that its expansion has quadrupled since the passage of the tariff act of June 30, 1864; and we have the highest authority for stating that there are now employed in its production and distribution more hands than were engaged in the same line of trade in France after two hundred years of its existence; while its accelerated progress here is far in advance of that made in any European country for a corresponding length of time. The statistics also show that the importations of China silk into the United States are larger than those of Great Britain for the ten years ending with 1845, and fully equal to those of the same country for the ten years ending with 1850.

The State of Connecticut early became identified with the silk trade. Barber's History of Connecticut (published in 1836) contains the following, under the head of "Mansfield:—"

"A larger quantity of silk is manufactured here than at any other place in the United States. This branch of industry was introduced into this country by Dr. Aspinwall, of this place, about 1766, who established the raising of silk-worms in New Haven, Long Island, and Philadelphia. At this period (1766) half an ounce of mulberry-seed was sent to every parish in Connecticut, and the legislature for a time offered a bounty on mulberry-trees and raw silk. Two hundred and sixty-five pounds were raised in 1793, and the quantity has been increasing ever since. In 1830, 3,200 pounds were raised. Two small silk-factories have been established in this town by an English manufacturer. The double wheel-head was invented by Mr. Horace Hanks, about the year 1800, for the purpose of spinning silk. It was first used in the family of Mr. Wright. The first silk reeled from cocoons was the work of the wife of the Rev. Mr. Martin, who had been in France, and had seen the operation in that country."

The growth of silk-culture in Mansfield, as indicated above, steadily rising from 265 pounds, in 1793, to 3,200 pounds in a period of thirty-seven years, was continuous until 1843-44, when a blight of the mulberry-trees and other concurrent misfortunes led to an abandonment of silk-culture, not only in that locality, but throughout the country.

The three thousand pounds of raw silk which were then (1830) annually produced in Mansfield could only be disposed of when converted by hand-manufacture into sewing-silk, and for the most part had to be offered in barter. It was hoped that by means of machinery a sewing-silk could be made equal to the Italian, and, like it, capable of being sold for cash instead of being exchanged for goods at irregular valuations. When the machinery was put in motion, about 1831, the serious difficulties of manufacture soon

became manifest. The machinery was very crude, and a Yankee "throwster" of seventeen to-day would scarcely recognize it as bearing any relation to the work. It was capable of doing all that had been claimed for it, but it proved inadequate for the manufacture of American silk, as that was then reeled.

Among those who closely observed the principles of the machinery employed in the silk-mill was Nathan Rixford. He had just established himself as a builder of machinery at Mansfield Hollow. Scarcely was the machinery of the mill complete, when this young man projected considerable improvements upon it, and began construction accordingly. Doubling and winding frames and a spinner made upon his plans were a notable advance on the English machinery of Golding, and many marked features then introduced by Mr. Rixford are retained among the improvements of the silk manufacture of to-day. His success attracted attention. He soon began to receive orders from different parts of the country, and for several years was the principal builder of silk machinery. Prominent among the earlier silk culturists and manufacturers in the New England States were Jonathan H. Cobb, of Dedham, Mass.; the Nantucket Silk Company, of Nantucket, Mass.; Samuel Whitmarsh, of Northampton, Mass.; and Cheney Brothers, of Manchester, Conn. Mr. Whitmarsh and others introduced new varieties of mulberry-trees, prominent among which was the much-vaunted *Mulicassalis*, and of less celebrity, though more value, the Alpine and the Brusasia, the two latter being really worthy of cultivation in this country, while the former, by its utter and wide-spread failure, after being absurdly overrated, brought loss and disgrace on the entire silk industry of the United States.

This industry in America began, as we have seen, with home growth and a home manufacture; the latter originally depended upon the native product, but gained sufficient foothold to survive the extinction of American silk culture.

The yearly value of silk goods now made in this country is over \$20,000,000, and there is a constant improvement in style, quality, and mode of finish. Prominent among the leading manufacturers may be mentioned Messrs. Cheney Brothers, at South Manchester, Conn., who, though destruction overtook their earlier efforts in raw-silk culture, have been eminently successful in spinning, weaving, dyeing, and all the branches of the manufacture.

The silk manufacture was early undertaken in other States; by Mr. William H. Horstmann, at Philadelphia, in 1815; by Mr. B. B. Tilt, at Boston, in 1834; by the Nonotuck Silk Company, at Florence, in 1838; by Messrs. Murray & Ryle, Paterson, N. J., in 1840; by Mr. Hirsch Heinemann, at New York, in 1842; by Mr. E. De Boissieu, at Williamsburgh, Kans., in 1869, and in San Francisco, by the California Silk Manufacturing Company, in 1870, for the manufacture of tram, organzine, fringe-silk, sewing-silk, and twist; and in 1874, by the Union Pacific Silk Manufacturing Company, who have undertaken to establish silk-weaving on the Pacific coast.

An interesting feature of the latter enterprise is the proposed employment of Chinese help, for the supply of which the company has made advantageous contracts. As the company presents this feature, and the cheapness of such labor, as one of its conditions of success, the employment of the Chinese in American silk manufacture may be said to be inaugurated. Recent reports state that their labor proves to be very satisfactory, that they are very quick to learn, and that already many are able to take care of their looms, and are in fact equal to the best white employées.

The importance of the silk manufacture in the single item of affording healthy, clean, and remunerative employment to women and girls is attested in all the States where the manufacture is carried on. While a few persons may be startled by the introduction of Chinese cheap labor in the silk industry as an element of financial success, because the rewards paid to labor form the largest item in the manufacture of textile fabrics, we believe that fears on this subject are groundless. It is not unreasonable to expect that before long the higher wages of the Caucasian will affect rather than be affected by the rate paid to the Mongolian. At least the experiment is interesting, and the result will be watched with attention.

The representative houses now engaged in the silk business in this country are classified as follows, namely:

*Broad-silk weaving*.—Cheney Brothers, South Manchester and Hartford, Conn.; W. A. Machle, West Hoboken, N. J.; P. G. Givernaud & Sons, West Hoboken, N. J.; Herman Simon, Union, N. J.; the Phoenix Silk Manufacturing Company, B. B. Tilt, president, Paterson, N. J.; Hamil & Booth, Paterson, N. J.; John Ryle & Sons, Paterson, N. J.; Frederick Baaré, Paterson, N. J.; C. Chaffonjon, Hudson City, N. J., and John N. Stearns & Co., East Forty-second street, New York.

*Ribbons, &c.*—William Strange & Co., Paterson, N. J.; Dexter, Lambert & Co., Paterson, N. J.; A. Soleliac & Sons, Paterson, N. J.; Pelgram & Meyer, Paterson, N. J.; Werner Itachner & Co., Philadelphia; Silbermann, Heinemann & Co., New York; College Point Silk Mills, Long Island; Hobbey Brothers, Williamsburgh, L. I., and the Norwich Loom Company, Norwich, Conn.

*Thrown-silks, (silk threads).*—Besides many of the above firms who are throwsters as well as broad-silk weavers, the following named make a specialty of the manufacture of tram and organzine: George B. Skinner & Co., Yonkers on the Hudson, N. Y.;

Wm. Macfarlane, and Wm. H. Copcutt & Co., Yonkers on the Hudson, N. Y.; D. A. Barnes; P. & J. Bannagan, and J. H. Booth & Co., Paterson, N. J.; the Scranton Silk Company, Scranton, Pa.; the Sauquoit Silk Manufacturing Company, Sauquoit, near Utica, N. Y., and Philadelphia, Pa.

*Sewing-silks and machine-twist.*—The Nonotuck Silk Company, Florence, Mass.; Warner & Lathrop, Northampton, Mass.; William Skinner, Holyoke, Mass.; Seavey, Foster & Bowman, Canton, Mass.; Belding Brothers, Rockville, Conn.; O. S. Chaffee & Son, Mansfield, Conn.; Macfarlane Brothers, Mansfield, Conn.; the Holland Manufacturing Company, Messrs. A. A. & H. E. Conant, and C. L. Bottum & Co., Willimantic, Conn.; J. H. Hayden, Windsor Locks, Conn.; P. W. Turner & Co., Turnerville, Conn.; the Heminway Silk Company, Watertown, Conn.; the Excelsior Manufacturing Company, Paterson, N. J.; John Dunlop, Paterson, N. J.; E. J. Watson & Co., Paterson, N. J.; John Lovatt's Sons, Tarrytown, N. Y.; the Singer Manufacturing Company, Newark, N. J.; the Oneida Community, Connecticut and New York; Messrs. Aub, Hackenbush & Co., B. Hooley & Son, Philadelphia, Pa., and the California Silk Manufacturing Company, San Francisco, Cal.

*Braids and bindings.*—The Dale Manufacturing Company, Paterson, N. J., and the Novelty Weaving and Braiding Company, Hartford, Conn.

*Patent sewing-silk voiles.*—S. M. Meyenberg, and Prall Brothers, Paterson, N. J.

*Ladies' dress-trimmings.*—Louis Franke, New York; Bernstein & Mack, New York; J. C. Graham, Philadelphia; Hensel, Colladay & Co., Philadelphia, and M. W. Lipper & Co., Philadelphia. Prominent in this department also is the house of William H. Horstmann & Sons, Philadelphia, who add coach-laces, military goods, and regalia to their varied assortment of silk manufactures.

*Gauze, blonde, and Brussels laces.*—A. G. Jennings, Nottingham Lace Works, Park avenue, Brooklyn.

The great middle classes are the patrons of these manufactures, and the time is not far distant when domestic dress silks will be in all respects so perfect in material and color as to come in direct competition with the most finished and costly productions of the looms of Brussels, Lyons, and Paris. In the line of twills and fancy silks, ribbons, sewing-silks, dress-trimmings, and bindings, our manufacturers have already attained deserved distinction; and, in respect to material and finish, these goods will compare favorably with the best imported.

On this point a speaker at a recent banquet of the Silk Association of America said:

"When our countrymen learn that silks are being manufactured in their midst to the value of from \$16,000,000 to \$20,000,000 every year, they want to give them a trial; and that, gentlemen, is all we ask. We do not ask our neighbors to buy inferior silks because they are made at home, but we do ask them not to condemn our silks because they have been told they were not made abroad. And, in my judgment, nothing can so further the interests of this industry as to publish far and wide throughout the land the figures representing the extent to which silk goods of American manufacture are actually consumed."

The silk trade of America has suffered for many years from the overimportation of foreign goods; but people have slowly been made aware of the fact that the cheap and inferior silks of European production are very heavily weighted and adulterated, and they are now supplanting them with the rich and handsome products of our own looms. The rapid strides we have made in supplying our home requirements are seen by a comparison of the value of product and the amount of capital invested in this business in 1860 and 1874. In the former year, the capital was reported at \$2,926,980, which had increased in the succeeding fourteen years to \$14,145,392; amount of wages paid to employes, \$1,050,224, against \$4,470,441; number of operatives, 5,435 for the former year, and 15,310 for the latter; while the value of product was \$6,607,771 in 1860, to be compared with \$19,027,482 at the more recent date.

The total imports of raw-silk in all the ports of the United States were, in the fiscal year ending June 30, 1864, 374,973 pounds; June 30, 1873, 1,159,420 pounds; June 30, 1875, 1,101,681 pounds.

The total imports of foreign silks were, in the fiscal year ending June 30, 1860, foreign gold-cost, \$33,065,820; June 30, 1873, foreign gold-cost, \$29,890,035; June 30, 1875, foreign gold-cost, \$24,380,916.

The American manufacturers have declared their utter independence of foreign makers, keeping their own designers and cutting their own cards for Jacquard patterns. The Jacquard process was invented years ago, by Joseph Marie Jacquard, and, after superseding hand labor in the manufacture of figured goods, is now doing its works and wonders on both sides of the Atlantic, being now in extensive use among our own manufacturers. The dyeing of silk is a process requiring the greatest care, in connection with both theoretic and practical skill. Great progress has been made in this art in the past few years. The following firms and individuals make a special business of dyeing silk, in addition to the chemists and dyers attached to the principal silk establishments: C. Greppo, Jacob Weidman, Morlot & Stettheimer, and See & Shean, Paterson, N. J.; Rudolph Klauder, and Wm. Derbyshire, Philadelphia, Pa.; Jas. Heidenreich, New York.

A great difficulty has long been experienced by importers and manufacturers by reason of the deterioration in the quality and irregularity in the size of the raw material produced in China and other countries. This evil has led the Silk Association of America to consider the expediency of establishing, at New York, a silk-conditioning house, after the manner of those now in successful operation at Lyons and St. Etienne, France. More than half the supply of silk is obtained from North China, and sufficient care should be given to the assortment of sizes, and to the protection afforded by a conditioning process in testing the true weight of silk, which is often fictitiously increased by the absorption of moisture from the atmosphere or from reservoirs of water near which silk may be conveniently placed or stored.

To establish a safeguard in this respect belongs to the province of what is termed "conditioning." The utility of the proposed measure is confirmed by reference to tabular statements of the average result of silk-conditioning for a period covering several years, as received from some of the principal silk markets of Europe. By these reports, we find that between the worst and best samples of raw silk, when properly tested, there is a difference of 3 per cent. in the moisture contained, and that the worst sample of organzine conditioned contained six per cent. more moisture than the best.

Looking back to so many triumphs in the past, it is but fitting that we should take into consideration the establishing of a permanent museum of art and design, like the India House in London. Here might be gathered specimens of manufactured goods of great variety from the varied climes in the lands of the Orient and the Occident, and here might be found scope and verge sufficient to stimulate the hopes and aims of the most ambitious. To imitate these treasures of inventive industry should be the true passport to position and hereditary fame.

#### SILK MANUFACTURES.

Table showing the rates of weekly wages paid the various class of operatives employed in the silk-industry in the following States in the year 1873.

Occupation.	New York.	New Jersey.	Pennsylvania.	Connecticut.	Massachusetts.	California.
<b>FEMALES.</b>						
<b>Hard silk:</b>						
Dansters .....	\$5 50 to \$7 50	\$5 00 to \$7 00	\$5 50 to \$6 50	\$6 50	\$7 00	\$9 00
Winders .....	5 00 to 7 00	4 50 to 6 00	5 00 to 6 00	\$6 00 to 7 00	6 50	4 50
Doublers .....	5 00 to 7 00	4 50 to 6 00	5 50 to 6 50	6 00 to 7 00	6 50	5 50
Cleaners .....	3 00 to 4 00	2 00 to 3 00	2 50 to 3 50	3 00 to 5 00	5 00	1 50
Reelers .....	4 00 to 6 00	5 00 to 7 00	4 50 to 5 50	6 00 to 7 00	6 50	5 50
<b>Soft silk:</b>						
Winders* .....	7 00 to 10 00	6 50 to 8 00	6 00 to 6 50	6 00 to 7 00	\$6 50 to 7 00	6 00
Doublers .....	6 00 to 8 00	5 00 to 7 00	5 50 to 6 50	6 00	6 50	-----
Cleaners .....	3 00 to 4 00	2 00 to 3 00	2 50 to 3 50	3 00 to 5 00	5 00	1 50
Quill-fillers .....	4 00 to 5 00	3 00 to 5 00	3 50 to 5 00	5 00	4 00 to 5 00	5 50
Spoolers .....	7 00 to 8 00	7 00 to 8 00	6 50 to 7 50	6 50	7 00	-----
Weavers .....	7 50 to 10 00	8 00 to 12 00	7 00 to 8 00	8 00	7 50 to 8 50	-----
Tassel-makers .....	7 50	-----	-----	-----	-----	-----
<b>MALES.</b>						
<b>Hard silk:</b>						
Mill men and boys .....	7 00 to 9 00	5 75 to 8 00	6 00 to 7 50	6 00 to 12 00	10 00 to 11 00	6 00
Cleaners .....	3 00 to 4 00	2 00 to 3 00	2 50 to 3 50	3 00 to 5 00	5 00	1 50
Weavers* .....	12 00 to 16 00	12 00 to 15 00	13 00 to 15 00	12 00 to 18 00	-----	-----
Dyers .....	15 00 to 18 00	12 00 to 15 00	12 00 to 15 00	12 00 to 18 00	16 00 to 25 00	24 00
Stringers .....	12 00 to 15 00	13 00 to 16 00	12 00 to 15 00	12 00 to 15 00	15 00	\$12 00 to 18 00
Laborers .....	10 00 to 12 00	9 00 to 10 00	8 00 to 10 00	9 00 to 10 00	10 00	-----
Lace-machine men .....	12 00 to 30 00	-----	-----	-----	-----	-----

NOTE BY THE SECRETARY.—The rates of wages above given are the average of returns received from a number of silk manufacturers in the several States. The returns were received in the spring of the year 1874, and related to the year 1873, during the last four months of which the average rewards of labor were lowered by the consequences of the commercial panic commencing in September of that year.

The rates given may, therefore, be considered the standard of wages earned by the silk operatives in America, so far as they can be expressed in a table of this character.

\* In many instances operatives will earn much more than the above rates; especially is this the case with soft-silk winders, warpers, and weavers who work by the piece or by the pound. The wages for these will vary according to the skill of the operative and the quality of silk employed, frequently running as high as \$12 per week for soft-silk winders, and \$20 for male weavers.

## PRINTING-OFFICES.

Table showing the rates of weekly earnings, also the price per 1,000 ems, paid to compositors in printing-offices in the following cities in the year 1875.

Cities.	Weekly wages.	Per 1,000 ems—			Cities.	Weekly wages.	Per 1,000 ems—		
		On book-wk.	On morning papers.	On evening papers.			On book-wk.	On morning papers.	On evening papers.
	Dollars.	Cents.	Cents.	Cents.		Dollars.	Cents.	Cents.	Cents.
Albany, N. Y. ....	18	50	(a)	(b)	Milwaukee, Wis. ....	15 to 18	40	35	
Annapolis, Md. ....	15	50			Mobile, Ala. ....	24	60	60	
Baltimore, Md. ....	18	c55	50	50	Montgomery, Ala. ....	22½	45	40	40
Boston, Mass. ....	15 to 20	45	45	40	Nashville, Tenn. ....	20	50	50	
Buffalo, N. Y. ....	15	40	38	35	Newark, N. J. ....	18	45	40	
Cambridge, Mass. ....	18	d45			New Orleans, La. ....	20	50	50	
Charleston, S. C. ....	20	50	50	50	New York, N. Y. ....	20	f50	50	45
Chicago, Ill. ....	21	50	47	42	Philadelphia, Pa. ....	18	g50	50	48
Cincinnati, Ohio. ....	21		45	42	Pittsburgh, Pa. ....	15		45	45
Cleveland, Ohio. ....	15	e40	45	37½	Portland, Me. ....	14 to 18		35	30
Columbia, S. C. ....			50	50	Providence, R. I. ....	14	33	42	38
Columbus, Ohio. ....	16		40	37½	Raleigh, N. C. ....	18	50	50	50
Dayton, Ohio. ....	16		40	40	Richmond, Va. ....	20	50	50	50
*Denver, Colo. ....	25	55	55	50	Rochester, N. Y. ....	14 to 18		35	35
Des Moines, Iowa. ....	15	35	35	35	Salt Lake City, Utah. ....	24	50	55	50
Detroit, Mich. ....	16	40	40	35	*San Francisco, Cal. ....	30	60	60	60
Harrisburgh, Pa. ....	15		35	35	Savannah, Ga. ....			50	50
Hartford, Conn. ....	18 to 20	40	45	40	Scranton, Pa. ....	15		35	33½
Indianapolis, Ind. ....	18		45	40	Saint Louis, Mo. ....	20	45	45	45
Jackson, Miss. ....	27		65	65	Syracuse, N. Y. ....	15		35	32
Jersey City, N. J. ....	18		45	45	Topeka, Kans. ....	19		40	40
Kansas City, Mo. ....	18		45	40	Troy, N. Y. ....	18		45	40
Little Rock, Ark. ....	25	60	60	55	Utica, N. Y. ....	14	38	40	36
Louisville, Ky. ....	21		50	50	Washington, D. C. ....	24	60	60	60
Memphis, Tenn. ....	25		60	60	Wilmington, Del. ....	12 to 18	35	35	35

a \$18 per week.

b \$17 per week.

c 50 cents for reprint.

d 43 cents for reprint.

e 37½ cents for reprint. f 47 cents for reprint. g 48 cents for reprint.

\* Gold prices.

## IV.—EXPENSES

## COST OF PROVISIONS, GROCERIES,

Table showing the average retail prices of provisions, groceries, and other leading articles of States, in the respective years

Articles.	Maine.		New Hampshire.			Vermont.		
	1867.	1869.	1867.	1869.	1874.	1867.	1869.	1874.
<b>PROVISIONS.</b>								
Flour, wheat, superfine.....per bbl.	\$12 35	\$9 15	\$13 10	\$9 32	\$7 17	\$12 25	\$10 12	\$6 98
Flour, wheat, extra family.....do.	13 10	9 40	14 40	9 81	8 75	13 00	9 75	7 67
Flour, rye.....do.	7 00	6 33	8 50	7 30	5 77	-----	7 00	5 87
Corn-meal.....do.	3 04	2 38	3 52	2 91	3 92	6 50	5 20	3 25
Beef, fresh, roasting-pieces.....per lb.	15	14	20	20	16	20	18	14
Beef, fresh, soup-pieces.....do.	06	06	07	06	07	14	13	07
Beef, fresh, rump-steaks.....do.	24	23	26	24	20	20	20	16
Beef, corned.....do.	15	13	15	15	10	13	11	12
Veal, fore quarters.....do.	11	10	13	13	11	13	10	10
Veal, hind quarters.....do.	19	11	18	17	15	16	13	12
Veal, cutlets.....do.	15	15	22	22	20	20	20	16
Mutton, fore quarters.....do.	11	09	12	13	11	15	13	14
Mutton, legs.....do.	19	11	18	18	17	16	15	16
Mutton, chops.....do.	13	12	19	19	17	20	16	19
Pork, fresh.....do.	16	16	17	18	14	20	16	13
Pork, corned and salted.....do.	19	22	19	21	14	22	23	14
Pork, bacon.....do.	20	22	20	22	14	-----	17	16
Pork, hams, smoked.....do.	20	21	21	23	16	23	23	16
Pork, shoulders.....do.	16	18	17	17	13	18	17	13
Pork, sausages.....do.	21	19	19	21	16	25	25	16
Lard.....do.	19	24	21	25	16	22	25	13
Cod-fish, dry.....do.	07	06	09	09	07	08	08	09
Mackerel, pickled.....do.	13	12	13	14	11	15	16	10
Butter.....do.	37	42	38	41	37	46	42	35
Cheese.....do.	19	21	18	20	18	19	18	17
Potatoes.....per bush.	75	54	84	67	67	62	55	50
Rice.....per lb.	13	13	14	13	10	15	13	11
Beans.....per qt.	14	12	15	14	11	11	13	10
Milk.....do.	07	07	07	07	06	07	07	06
Eggs.....per doz.	27	28	30	31	31	25	27	27
<b>GROCERIES, ETC.</b>								
Tea, Oolong or good black.....per lb.	1 06	1 00	1 30	1 18	77	1 40	1 28	1 37
Coffee, Rio, green.....do.	30	27	32	30	32	29	33	27
Coffee, Rio, roasted.....do.	37	34	41	40	36	39	40	34
Sugar, good brown.....do.	15	15	14	15	09	14	14	08
Sugar, yellow C.....do.	15	15	15	15	10	15	15	10
Sugar, coffee B.....do.	16	17	16	17	11	18	17	11
Molasses, New Orleans.....per gall.	90	93	1 00	88	86	1 00	1 07	90
Molasses, Porto Rico.....do.	72	84	90	85	70	84	74	71
Sirup.....do.	1 00	1 00	1 28	1 15	63	1 25	1 16	87
Soap, common.....per lb.	14	12	13	12	09	13	13	08
Starch.....do.	17	16	16	18	12	14	15	12
Fuel, coal.....per ton.	9 50	11 20	10 20	11 33	10 50	15 00	11 75	6 77
Fuel, wood, hard.....per cord.	5 55	6 00	6 90	7 35	6 22	5 06	5 50	6 08
Fuel, pine, wood.....do.	3 15	3 15	4 44	4 81	3 89	4 00	-----	4 75
Oil, coal.....per gall.	66	49	61	46	22	60	48	17
<b>DOMESTIC DRY-GOODS, ETC.</b>								
Shirts, brown, 4-4, standard quality.....per yd.	17	17	18	18	12	17	18	10
Shirts, bleached, 4-4, standard quality.....per yd.	17	17	20	20	14	16	18	12
Sheetings, brown, 9-8, standard quality.....per yd.	16	16	19	19	13	12	17	12
Sheetings, bleached, 9-8, standard quality.....per yd.	20	21	22	21	15	22	25	16
Cotton, hannel.....do.	25	25	24	24	17	25	25	17
Ticking, good quality.....do.	33	33	37	36	22	29	39	22
Prints, Merrimac.....do.	14	14	16	15	10	14	15	10
Mousseline de laines.....do.	20	21	24	24	22	21	22	21
Satinets, medium quality.....do.	74	70	77	65	93	58	53	72
Boots, men's heavy.....per pair.	5 00	4 83	4 85	4 37	4 03	5 00	4 50	3 82
<b>HOUSE-RENT.</b>								
Four-roomed tenements.....per mo.	4 50	4 45	4 25	5 30	6 85	4 00	5 00	9 50
Six-roomed tenements.....do.	6 40	6 45	7 28	7 70	9 52	6 50	7 00	10 33
<b>BOARD.</b>								
For men.....per week.	3 70	3 72	4 00	3 80	4 02	4 66	4 50	4 00
For women.....do.	2 70	2 70	3 06	2 85	2 91	3 00	2 82	3 33

## OF LIVING.

## DEY-GOODS, HOUSE-RENT, ETC.

consumption, also prices of house-rent and board, in the towns of the several New England 1867, 1869, and 1874.

Massachusetts.			Rhode Island.			Connecticut.			Average in New England.		
1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
\$14 66	\$9 28	\$8 64	\$12 27	\$9 70	\$8 21	\$14 00	\$9 61	\$8 12	\$12 55	\$9 53	\$7 82
15 65	10 51	9 47	13 12	10 40	9 10	-----	10 92	9 12	15 10	10 12	8 80
8 75	6 47	6 30	6 00	5 50	4 25	10 24	7 75	6 75	10 12	6 72	5 78
4 74	4 22	3 92	3 80	3 06	3 83	4 20	3 75	4 12	4 30	3 58	3 63
26	24	22½	20	21	18½	22	21	20	20	20	18
08	08	10	09	09	09½	12	11	09	09	09	08½
27	26	23½	24	23	22	23	23	17½	24	23	19½
15	15	12½	15	15	11½	16	16	12	15	14	11
13	14	12½	16	16	12½	16	16	14	14	13	12
18	19	17½	21	21	14½	19	19	17	17	16	15
26	27	24½	23	23	22½	23	23	21	22	22	21
13	14	13	15	15	12	15	15	14	14	13	13
19	20	18	22	22	18	21	21	18	16	16	17½
19	20	19½	24	24	21½	22	23	21	19	19	20
1F	20	17½	19	19	14	20	21	15	18	18	15
18	20	15½	19	20	14	20	22	17	21	22	15
20	20	20½	20	20	16½	21	21	17	20	21	17
22	23	17½	22	21	14½	24	25	19	22	23	16½
18	18	14	17	17	13½	19	20	15	18	18	13½
19	22	16½	21	23	15	21	23	17	21	22	16
20	23	17½	22	22	17½	19	24	17	20	24	17
09	09	08	08	08	07	09	10	08½	09	09	07½
13	14	13	12	13	10½	14	16	11	13	14	11
44	46	39	46	47	38	46	48	41	42	45	37½
19	20	20	22	21	19½	22	24	20	20	21	19
97	79	84½	91	73	96	98	66	78	84	66	77
13	12	11	12	12	10	15	14	11	14	13	11
15	14	12	15	13	10½	15	13	11	14	13	11
07	07	06½	06	07	06½	07	08	08	07	07	07
38	37	34½	36	39	33	34	36	36	31	33	33
1 23	1 25	84	1 20	1 11	74	1 20	1 20	92	1 23	1 17	93
33	30	22	37	32	33½	32	32	24	32	31	28
43	41	32½	45	40	37½	26	36	30	40	38	35
15	15	09½	15	12	09½	15	15	10½	14	14	10
15	15	10	16	15	10½	16	16	10½	15	15	10½
16	16	10½	16	16	11	18	18	11	17	17	11
96	1 15	83	1 05	1 03	86	1 00	1 00	89	98	1 03	87
83	88	76½	89	88	73½	90	90	76	84	87	73½
1 34	1 25	92½	1 11	1 11	92½	1 21	1 21	1 10	1 18	1 15	93
13	13	09	11	11	09	13	13	09	13	13	09
16	15	13	14	14	11½	15	15	14	15	16	12½
10 00	11 06	9 17	8 50	10 50	9 50	10 55	10 55	8 83	10 59	11 06	8 85
8 55	8 72	7 72	7 25	7 21	7 42	7 00	7 00	7 33	6 81	6 96	6 95
6 17	6 72	6 25	6 66	6 71	5 92	5 50	5 50	4 00	4 99	5 38	4 96
62	47	20½	62	49	23½	50	50	25	60	48	21½
21	17	11½	18	17	11	18	18	10	18	18	11
21	18	14½	22	20	12½	21	21	13	20	19	13
21	19	13½	25	20	15½	20	20	14	19	19	18½
24	22	14½	30	25	19	23	23	16	24	23	16
30	26	19½	35	33	18½	30	30	20	28	27	16½
41	36	24½	40	38	25½	34	34	25	36	35	24
17	15	10	16	15	10	15	15	10	15	15	10
25	23	24½	24	24	25	25	25	21	23	23	20½
67	68	58	87	70	67½	80	80	50	74	69	68
5 02	4 88	4 03	4 50	4 50	3 79	4 90	4 90	3 56	4 84	4 66	3 87
8 77	9 70	5 10	3 39	3 26	4 45	4 85	5 12	3 28	4 96	5 47	5 85
11 74	13 06	6 95	3 91	3 92	5 70	6 25	7 00	4 75	6 84	7 62	7 45
4 68	4 70	4 12	3 70	3 95	4 04	4 72	4 72	3 81	4 34	4 23	4 00
3 41	3 52	3 10	3 00	3 25	2 87	3 71	3 71	2 62	3 14	3 02	2 97



Table showing the average retail prices of provisions, groceries, and other leading articles of in the respective years

Articles.	New York.			New Jersey.			Pennsylvania.		
	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
<b>PROVISIONS.</b>									
Flour, wheat, superfine.....per bbl.	\$12 50	\$7 85	\$7 50	\$14 12	\$9 66	\$8 00	\$12 68	\$7 53	\$7 00
Flour, wheat, extra family.....do.	11 35	7 80	9 12	13 50	9 00	10 17	12 44	7 75	7 88
Flour, rye.....do.	8 16	6 58	6 25	9 40	7 25	4 25	8 65	6 75	5 25
Corn-meal.....do.	5 18	3 65	4 24	5 50	5 50	3 55	5 18	4 38	4 38
Beef, fresh, roasting-pieces.....per lb.	19	19	15½	23	23	20½	16	17	17
Beef, fresh, soup-pieces.....do.	10	09	08½	14	14	08½	12	12	19
Beef, fresh, rump-steaks.....do.	21	20	15½	23	22	20	17	18	17
Beef, corned.....do.	14	14	11	16	16	13½	13	14	14
Veal, fore quarters.....do.	14	13	11	17	17	15½	11	11	12½
Veal, hind quarters.....do.	15	16	13½	22	22	19	13	13	14½
Veal-outlets.....do.	18	20	18	26	27	23½	19	21	18
Mutton, fore quarters.....do.	14	12	10½	14	13	11	12	11	13½
Mutton, leg.....do.	16	16	14½	18	18	18	13	13	16
Mutton-chops.....do.	16	17	16	21	20	21	15	16	16½
Pork, fresh.....do.	17	18	14½	19	20	15	15	17	14
Pork, corned or salted.....do.	17	19	14½	18	19	14	18	19	13½
Pork, bacon.....do.	20	22	14½	18	19	17	17	18	14½
Pork, hams, smoked.....do.	20	24	16½	23	23	17	23	24	16½
Pork, shoulders.....do.	18	19	12	20	21	13½	18	18	13
Pork, sausages.....do.	22	23	16½	22	22	16	20	20	16½
Lard.....do.	19	24	17½	20	24	17½	18	22	16½
Cod-fish, dry.....do.	09	09	08½	11	11	08½	10	10	08½
Mackerel, pickled.....do.	16	15	12	14	15	12½	13	11	12½
Butter.....do.	35	42	35	47	52	45½	36	40	35½
Cheese.....do.	21	20	18½	26	26	19	22	21	19
Potatoes.....per bus.	1 03	60	77	1 33	1 23	1 00	1 00	69	97
Rice.....per lb.	13	13	11	14	12	10	14	13	12
Beans.....per qt.	17	12	09	13	12	11½	11	12	10½
Milk.....do.	08	08	07	09	10	09	09	09	08½
Eggs.....per doz.	25	31	24	36	39	36½	26	25	30
<b>GROCERIES, ETC.</b>									
Tea, Oolong or other good black per lb.	1 26	1 12	99	1 24	1 53	90	1 50	1 35	91
Coffee, Rio, green.....do.	31	29	29	33	31	25	31	28	26½
Coffee, Rio, roasted.....do.	36	33	34½	45	38	33½	33	31	32½
Sugar, good brown.....do.	14	15	09½	14	14	09½	16	16	08½
Sugar, yellow C.....do.	15	16	10½	15	15	10½	17	17	11
Sugar, coffee B.....do.	16	17	11	16	16	11	18	17	11
Molasses, New Orleans.....per gall.	1 09	1 02	80	1 04	1 04	96½	1 12	1 12	97
Molasses, Porto Rico.....do.	1 00	83	77½	67	89	73½	81	77	78
Sirup.....do.	1 26	1 18	97	1 14	1 18	1 00	1 26	1 16	89
Soap, common.....per lb.	12	12	08½	11	11	07	09	08	08
Starch.....do.	13	13	12	15	14	13½	13	13	11
Fuel, coal.....per ton.	7 85	8 10	7 88	7 90	8 84	6 92	4 25	4 44	5 60
Fuel, wood, hard.....per cord.	6 20	6 30	5 27	6 60	5 40	9 00	4 50	4 00	5 46
Fuel, wood, pine.....do.	4 00	4 12	4 18	7 00	6 50	9 00	2 75	2 72	4 31
Oil, coal.....per gall.	63	46	16½	58	55	23	55	50	26½
<b>DOMESTIC DRY-GOODS, ETC.</b>									
Shirtings, brown, 4-4, standard quality.....per yard.	18	18	12½	19	17	13½	21	20	13½
Shirtings, bleached, 4-4, standard quality.....per yard.	24	20	15	25	20	16½	24	24	13½
Sheetings, brown, 9-8, standard quality.....per yard.	26	21	18½	28	21	15	32	28	17½
Sheetings, bleached, 9-8, standard quality.....per yard.	28	28	20½	32	28	16	35	34	19½
Cotton-fannel, medium quality.....do.	30	28	21½	28	25	18	26	23	19
Tickings, good quality.....do.	35	34	26½	44	37	26½	42	28	26
Prints, Merrimac.....do.	15	11	11	16	15	10½	16	15	11
Mousseline de laines.....do.	24	23	22½	27	23	19	24	23	21
Satinets, medium quality.....do.	77	67	80½	1 00	65	65	91	82	58
Boots, men's heavy.....per pair.	4 62	4 40	4 22	4 44	5 07	4 50	5 64	5 12	4 40
<b>HOUSE-RENT.</b>									
Four-roomed tenements.....per mo.	8 50	8 40	6 76	7 70	10 46	16 00	6 16	4 40	9 37
Six-roomed tenements.....do.	11 20	11 20	10 58	11 80	14 95	20 00	9 74	9 30	12 70
<b>BOARD.</b>									
For men, (mechanics, &c.).....per week.	4 75	4 50	4 29	4 74	4 72	5 00	5 12	4 40	4 75
For women in factories.....do.	3 75	3 50	3 21	4 12	3 93	3 75	3 16	3 00	3 59

consumption, with prices of house-rent and board, in the towns of the several Middle States, 1867, 1869, and 1874.

Delaware.			Maryland.			West Virginia.			Average of the Middle States.		
1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
\$14 00	\$7 00	\$6 19	\$12 00	\$7 00	\$6 41	\$11 47	\$6 58	\$6 11	\$12 80	\$7 60	\$6 87
15 00	8 00	7 69	14 00	8 00	8 08	14 25	8 14	7 29	13 42	8 11	8 35
5 00	4 00				5 88	8 08	5 32	5 25	7 86	5 98	5 38
5 00	4 00	4 43	5 00	5 00	4 37	4 09	3 27	3 33	4 99	4 29	4 07
19	18	19	20	15	12	12	11	11	18	17	14
15	15	11	20	18	10	08	08	08	13	13	10
18	18	19	17	16	13	14	12	12	18	18	16
12	12	12	20	18	11	14	13	10	15	14	12
14	14	13	20	18	10	11	09	09	14	13	19
16	16	15	20	18	13	11	11	12	16	16	13
18	18	20	18	16	17	15	14	13	19	19	18
15	15	13	20	18	11	08	07	09	14	12	13
17	17	17	20	18	15	11	09	12	16	15	15
18	18	19	20	18	15	14	12	12	17	17	17
20	20	14			11	11	11	11	16	17	15
25	25	12	25	25	13	14	15	11	19	20	13
25	25	12	23	23	13	12	18	14	21	21	14
22	22	18	23	20	17	22	22	16	22	22	17
21	21	14	25	20	12	16	16	11	19	19	12
25	25	15	25	25	18	16	16	13	21	22	16
25	25	16			16	18	19	15	20	23	16
08	08	12	15	20	09	09	09	09	10	11	09
10	10	13	15	20	20	12	12	10	13	14	13
50	50	45	40	40	27	27	27	29	39	42	36
22	25	21	25	25	23	23	23	24	23	23	20
1 00	60	1 09	75	1 00	76	91	61	97	1 00	79	93
12	10	12	15	13	11	15	13	11	14	12	11
10	08	10	10	10	09	11	10	08	12	10	10
05	05	09	10	10	07	09	09	09	08	08	08
35	40	34	28	22	25	17	16	18	28	29	28
1 25	1 00	73	1 50	1 25	1 10	1 69	1 40	1 01	1 41	1 28	94
28	30	29	36	30	27	31	28	22	32	29	28
30	35	34	35	35	31	35	32	32	36	34	33
18	17	09	16	15	12	17	16	12	16	15	10
16	16	10	17	18	11	18	17	12	16	16	11
14	13	11	19	19	11	19	19	13	17	17	11
1 00	90	92	75	60	1 05	1 12	1 02	96	1 02	95	93
1 00	90	75			83	88	86	73	87	86	77
1 30	1 20	83	1 25	1 00	90	1 35	1 21	92	1 26	1 32	92
10	08	06	06	06	08	10	09	09	10	09	08
08	08	10	12	12	12	17	15	10	13	13	11
8 00	9 00	6 10	8 50	8 50	2 16	3 41	3 28	3 89	6 65	7 02	5 43
5 00	5 00	6 50	4 00	4 00	3 83	3 05	2 87	4 10	4 89	4 60	5 69
4 00	4 00	5 25	3 50	3 50	3 50			3 16	4 25	4 17	4 90
60	50	25	75	60	22	66	51	27	63	52	24
35	30	12	28	25	13	21	18	11	23	21	12
32	25	13	40	28	18	25	23	13	28	23	15
35	30	13	33	25	32	29	24	13	28	25	18
35	30	21	45	37	35	30	26	15	34	30	21
30	25	15	31	28	16	29	24	17	29	25	18
50	40	33	65	50	32	49	39	33	47	38	26
31	18	11	22	18	10	19	15	11	19	15	11
37	20	24	25	25	23	27	25	20	26	23	21
1 25	90	49	60	50	90	1 02	81	73	1 09	72	69
6 75	6 00	3 25	6 00	5 25	4 50	6 19	5 44	4 33	5 01	5 21	4 20
4 00	4 00	8 50	6 00	6 00	9 00	7 16	6 96	11 70	6 59	6 70	10 22
5 00	5 00	11 12	10 00	10 00	13 25	10 32	10 27	19 10	9 66	10 12	14 52
5 00	5 00	4 62	4 00	4 00	3 87	4 33	4 16	4 33	4 66	4 46	4 45
3 90	4 00	3 50	3 50	3 50	3 25	3 96	3 83	3 29	3 59	3 63	3 43

Table showing the average retail prices of provisions, groceries, and other leading articles of States, in the respective years

Articles.	Virginia.			North Carolina.			South Carolina.		
	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
<b>PROVISIONS.</b>									
Flour, wheat, superfine..... per bbl.	\$9 95	\$6 61	\$6 59	\$10 72	\$9 50	\$6 50	\$13 25	\$9 69	\$9 06
Flour, wheat, extra family..... do.	11 86	8 09	7 81	12 14	10 64	8 83	15 50	10 75	11 00
Flour, rye..... do.	7 96	6 27	3 60	6 00	6 66	.....	13 00	6 83	.....
Corn-meal..... do.	4 20	4 14	3 94	5 25	5 11	4 23	7 08	5 15	6 00
Beef, fresh, roasting-pieces..... per lb.	13	12	11½	09	07	07½	12	09	15
Beef, fresh, soup-pieces..... do.	09	08	09½	07	06	.....	08	06	12
Beef, fresh, rump-steaks..... do.	14	12	12½	08	07	12½	12	11	12
Beef, corned..... do.	11	12	11	07	06	15	14	12	20
Veal, fore quarters..... do.	14	11	11½	07	06	.....	12	09	12
Veal, hind quarters..... do.	15	13	14	08	07	.....	13	10	12
Veal-cutlets..... do.	10	14	12½	08	07	.....	17	12	12
Mutton, fore quarters..... do.	12	10	13½	07	05	05	12	10	12
Mutton, leg..... do.	12	12	14½	08	07	.....	12	10	12
Mutton-chops..... do.	12	12	15½	08	09	.....	15	13	12
Pork, fresh..... do.	14	12	13	11	11	10	16	15	15
Pork, corned or salted..... do.	16	16	10½	13	14	12½	20	20	15
Pork, bacon..... do.	18	21	11	19	20	12½	23	23	18
Pork, hama, smoked..... do.	23	24	15½	22	22	17½	25	25	20
Pork, shoulders..... do.	17	18	10½	18	19	10	20	19	15
Pork, sausages..... do.	19	20	14	19	21	16½	20	21	20
Lard..... do.	20	22	14	22	22	16½	24	25	20
Cod-fish, dry..... do.	11	11	08½	12	10	.....	17	17	06
Mackerel, pickled..... do.	15	13	12½	11	11	10	17	15	10
Butter..... do.	32	33	35	27	28	38	32	29	35
Cheese..... do.	25	26	22½	26	25	22	28	25	20
Potatoes..... per bus.	69	91	66	70	73	1 17	1 65	1 20	.....
Rice..... per lb.	15	13	12	15	15	10½	13	12	7½
Beans..... per qt.	09	10	08½	07	06	10	08	08	15
Milk..... do.	09	09	09	09	07	.....	14	11	19
Eggs..... per doz.	21	23	24	14	13	15	23	23	22
<b>GROCERIES, ETC.</b>									
Tea, Oolong or other good black per lb.	1 56	1 45	1 27	1 89	1 94	1 00	2 00	1 77	1 25
Coffee, Rio, green..... do.	28	27	26½	29	30	26½	30	29	30
Coffee, Rio, roasted..... do.	31	27	31½	33	33	40	35	30	35
Sugar, good brown..... do.	16	16	10½	18	17	12½	21	17	08
Sugar, yellow C..... do.	18	17	11½	17	19	11½	21	18	10
Sugar, coffee B..... do.	20	19	12½	20	20	13½	21	19	10
Molasses, New Orleans..... per gall.	1 09	1 01	90	99	98	86	1 36	1 22	1 25
Molasses, Porto Rico..... do.	84	83	60	84	79	75	1 12	84	1 00
Sirup..... do.	97	89	85	1 16	1 14	66	1 35	1 03	1 25
Soap, common..... per lb.	11	10	07½	09	09	07½	14	14	06
Starch..... do.	17	16	13	18	19	11	21	17	12
Fuel, coal..... per ton.	10 93	10 78	8 59	.....	.....	8 00	.....	.....	12 50
Fuel, wood, hard..... per cord.	3 81	3 54	4 44	2 53	2 05	3 17	5 33	4 81	5 00
Fuel, wood, pine..... do.	3 43	2 86	3 75	2 19	1 89	3 50	3 33	3 25	4 00
Oil, coal..... per gall.	67	59	33	77	72	41½	1 04	69	20
<b>DOMESTIC DRY-GOODS, ETC.</b>									
Shirtings, brown, 4-4, standard quality..... per yard.	22	19	11	19	19	13	23	19	.....
Shirtings, bleached, 4-4, standard quality..... do.	26	23	13	24	22	15½	26	25	.....
Sheetings, brown, 9-8, standard quality..... per yard.	34	23	24	50	38	10½	33	33	.....
Sheetings, bleached, 9-8, standard quality..... do.	36	34	25½	50	39	11½	38	31	.....
Cotton-flannel, medium quality..... do.	32	28	21	29	27	19½	32	27	.....
Ticking, good quality..... do.	40	34	33½	38	35	28	47	38	.....
Prints, Merrimac..... do.	18	15	11	17	16	11½	21	16	.....
Mousseline de laine..... do.	29	26	33	29	27	25	34	38	.....
Satinets, medium quality..... do.	20	06	52½	24	73	60	79	72	.....
Boots, men's heavy..... per pair.	5 47	4 96	4 58	4 78	4 47	4 00	6 50	5 98	.....
<b>HOUSE-RENT.</b>									
Four-roomed tenements..... per mo.	9 57	9 10	17 17	6 25	6 06	14 75	12 33	10 56	16 00
Six-roomed tenements..... do.	13 64	12 97	24 83	9 00	8 56	20 00	16 66	15 62	25 00
<b>BOARD.</b>									
For men, (mechanics, &c.)..... per week.	4 56	4 47	5 06	3 31	3 40	3 75	6 41	4 87	7 08
For women in factories..... do.	4 20	3 87	3 63	3 06	2 90	2 83	6 06	4 50	.....

consumption, with prices of house-rent and board, in the towns of the following Southern  
1867, 1869, and 1874.

Georgia.			Florida.			Alabama.			Mississippi.		
1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
\$12 03	\$0 54	\$6 75			\$6 12	\$11 14	\$8 38	\$6 68	\$12 30	\$8 27	\$7 75
14 96	10 37	8 50			9 50	14 00	10 94	8 18	13 40	10 72	8 25
	8 00				8 00	8 75	10 00	8 00			
5 40	5 70	4 47			6 25	5 10	4 54	3 90	6 80	5 67	4 83
14	11	11½			12½	12	11	09	15	12	10½
10	09	15			09	10	08	05½	09	08	08
16	13	15			09	13	12	10½	13	12	11
18	15	13½			17½	15	12	12	20	14	11½
13	12	10½			15	14	12	11½	12	10	10
15	13	15			20	16	14	12½	12	12	10
17	15	15			25	18	14	12	12	16	12½
11	10	13½			15	11	10	09½	11	11	07
14	13	15			20	13	12	11	14	13	09½
15	13	15			25	15	12	11½	17	15	12½
16	15	12			20	16	14	10	16	12	11½
18	17	12½			14	18	17	13	20	18	13½
21	21	13			15	23	23	14	24	22	14½
25	24	15			12½	25	24	16	27	27	16
17	17	10			10	17	19	10½	21	20	10½
25	24				25	27	23	18	30	26	20
24	24	16½			19	23	23	16½	25	25	18½
13	12	20			09	14	12	14½	17	13	11
15	15	25			10	22	19	10	17	14	19½
29	40	30			35	41	39	32	44	37	33
27	25	20½			18½	25	25	21½	28	27	23½
1 60	1 69	80			1 50	1 14	1 14	1 36	1 50	1 28	1 25
13	11	10½			10	17	14	10½	14	14	00½
12	15	12½			12½	22	17	11	20	18	12½
18	14	20			20	21	13	10½	17	13	10
23	27	21			25	27	27	20	30	29	22
1 80	1 71	1 25			1 00	2 20	2 03	1 24	1 90	1 87	1 12
30	27	26½			25	31	29	26	29	27	23½
36	33	21			47½			35	25	31	30
18	17	11½			10	16	16	10½	20	17	11
20	18	12			11	19	18	12	14	20	12½
20	19	13½			12½	18	19	12½	22	21	13½
24	21	87½			62½	1 15	1 08	92	1 25	1 08	81
76	74	55			50	1 00	75	70	1 03	90	60
1 15	1 12	80			67	1 42	1 32	97	1 44	1 25	90
12	10	08			08	10	10	09	15	12	10
18	15	13½			10	21	18	12	18	15	12½
12 80	12 80	8 25				8 00	8 55	8 40	16 00	12 67	
4 44	3 93	3 50			3 75	3 39	3 47	4 20	4 60	4 00	2 37
3 93	3 28	4 00			3 37	2 75	2 75	4 30	3 25	3 34	2 00
94	67	35			30	95	77	44	85	70	45
19	18	11½			09	20	19	10½	25	21	11½
24	22	14½			10	22	21	15½	30	23	15½
24	23	16½			15	47	33	19½	32	31	15
26	25	15			15	53	39	17	42	36	17½
22	26	22½			12½	33	27	23½	29	27	16½
48	40	29½			18	43	41	31	54	43	22½
19	16	11			09	17	16	10½	22	17	10½
31	27	41½			18	33	32	20½	35	30	22½
68	72	38½			52½	61	60	75	70	62	40
5 51	4 86	4 58			5 50	5 00	4 55	4 42	6 40	5 05	3 25
18 50	15 92	25 00			21 50	24 43	20 60	16 75	21 00	18 62	9 00
26 50	22 50	35 00			27 50	32 43	29 00	21 67	28 00	24 63	15 00
5 83	4 72	4 00			5 00	5 41	4 63	3 75	6 33	4 84	3 75
5 98	4 58	2 15			3 50	5 10	4 60	2 96	4 83	4 43	2 59

Table showing the average retail prices of provisions, groceries, and other leading

Articles.	Louisiana.			Texas.			Arkansas.		
	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
<b>PROVISIONS.</b>									
Flour, wheat, superfine ..... per bbl.	\$12 03	\$7 64	\$6 00	\$9 90	\$8 95	\$8 06	\$13 00	\$9 06	\$5 00
Flour, wheat, extra family ..... do.	15 55	10 05	7 75	11 37	9 65	9 75	15 00	10 65	6 50
Flour, rye ..... do.			5 50			8 50	16 00	9 00	
Corn meal ..... do.	6 03	5 22	4 12	3 66	3 46	3 69	2 95	2 92	4 50
Beef, fresh, roasting-pieces ..... per lb.	11	12	17	04	04	04	11	08	12
Beef, fresh, soup-pieces ..... do.	09	08	13	03	03	04	11	07	08
Beef, fresh, rump-steaks ..... do.	11	10	22	04	04	12	12	08	12
Beef, corned ..... do.	14	13	15	10	06	09	08	06	12
Veal, fore quarters ..... do.	14	13	15	05	05	10	11	06	12
Veal, hind quarters ..... do.	13	15	20	08	07	14	14	07	15
Veal-outlets ..... do.	15	16	22	09	07	14	14	07	15
Mutton, fore quarters ..... do.	14	15	15	06	05	09	15	12	12
Mutton, leg ..... do.	16	17	17	08	06	11	18	13	15
Mutton-chops ..... do.	19	18	17	08	07	14	18	15	15
Pork, fresh ..... do.	16	16	16	07	07	11	12	11	12
Pork, corned or salted ..... do.	21	19	15	17	12	13	22	21	12
Pork, bacon ..... do.	20	18	13	13	15	15	23	21	12
Pork, hams, smoked ..... do.	27	24	16	17	19	16	24	22	15
Pork, shoulders ..... do.	19	18	10	12	15	10	22	17	02
Pork, sausages ..... do.	23	20	20	17	15	17			12
Lard ..... do.	23	23	16	13	17	16	25	22	15
Cod-fish, dry ..... do.	14	12	09	10	15	09	13	07	06
Mackerel, pickled ..... do.	17	13	10	08	17	09	15	18	12
Butter ..... do.	52	49	45	22	20	32	40	31	30
Cheese ..... do.	34	28	22	29	31	24	30	25	25
Potatoes ..... per bush.	1 46	1 23	1 50	50	61	1 83	1 40	1 01	2 00
Rice ..... per lb.	13	11	08	15	14	11	12	14	10
Beans ..... per qt.	17	17	15	12	15	22	17	15	12
Milk ..... do.	16	13	17	10	10	15	20	17	15
Eggs ..... per dos.	35	33	27	15	14	31	35	29	20
<b>GROCERIES, ETC.</b>									
Tea, Oolong, or other good black per lb.	2 20	1 92	70	1 81	1 66	1 04	2 42	2 17	75
Coffee, Rio, green ..... do.	30	26	25	29	24	27	33	29	25
Coffee, Rio, roasted ..... do.	38	34	32	40	40	31			22
Sugar, good brown ..... do.	21	15	09	16	16	10	21	19	10
Sugar, yellow C ..... do.	20	17	11	18	18	12	21	18	10
Sugar, coffee B ..... do.	19	17	11	18	19	13	22	20	12
Molasses, New Orleans ..... per gal.	1 15	90	65	90	90	88	1 10	98	75
Molasses, Porto Rico ..... do.	93	82	47	61	61	87	1 02	1 00	
Sirup ..... do.	1 53	1 27	85	1 19	1 21	1 09	1 52	1 38	75
Soap, common ..... per lb.	13	10	06	12	11	07	11	10	06
Starch ..... do.	18	14	65	17	17	10	19	17	10
Fuel, coal ..... per ton.	7 50		6 00			12 00	3 05	5 00	8 00
Fuel, wood, hard ..... per cord.	6 06	6 00	5 00	3 12	2 90	5 83	4 37	3 34	4 00
Fuel, wood, pine ..... do.	3 25	5 00	3 50	2 58	2 12	5 75	6 00	4 70	6 00
Oil, coal ..... per gal.	82	50	22	23	25	52	90	78	27
<b>DOMESTIC DRY GOODS, ETC.</b>									
Shirtings, brown, 4-4, standard quality ..... per yd.	26	23	20	19	18	11	27	22	12
Shirtings, bleached, 4-4, standard quality ..... do.	27	23	22	26	22	12	25	20	14
Sheetings, brown, 9-8, standard quality ..... per yd.	46	38	30	30	26	14	27	38	14
Sheetings, bleached, 9-8, standard quality ..... do.	48	41	32	34	30	15	27	30	16
Cotton-fannel, medium quality ..... do.	36	27	20	26	25	18	38	32	12
Tickings, good quality ..... do.	40	32	30	50	44	25	55	48	25
Prints, Merrimac ..... do.	19	16	12	13	15	10	21	17	10
Mousseline de laine ..... do.	37	32	22	30	28	22	47	36	25
Satinets, medium quality ..... do.	66	63	90	84	83	67	1 26	90	1 00
Boots, men's heavy ..... per pair.	5 80	5 20	2 25	5 20	4 37	3 87	6 56	5 40	4 00
<b>HOUSE-RENT.</b>									
Four-roomed tenements ..... per month.	16 17	17 28	22 50	14 00	16 40	20 83	20 09	19 19	20 09
Six-roomed tenements ..... do.	22 00	24 28	32 50	23 00	24 25	31 66	37 00	39 28	40 09
<b>BOARD.</b>									
For men, (mechanics, &c) ..... per week.	4 70	5 58	4 50	3 50	3 82	5 08	7 00	5 06	5 50
For women in factories ..... do.	4 00	5 20	3 25	3 30	3 61		4 71		

articles of consumption, with prices of board and house-rent, &amp;c.—Continued.

Kentucky.			Tennessee.			Missouri.			Average of the Southern States.		
1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
\$10 86	\$5 50	\$5 00	\$10 15	\$5 79	\$5 30	\$10 28	\$5 25	\$5 50	\$11 29	\$8 06	\$5 56
12 56	7 70	6 21	11 44	8 00	6 33	11 72	7 80	6 75	12 99	9 61	8 10
6 40	5 55	5 75	4 83	4 58	6 62	10 00	6 31	4 50	9 12	7 02	6 31
3 42	3 03	3 08			3 78	4 00	3 63	3 00	4 90	4 42	4 29
11	11	12	09	08	10	12	11	11	11	10	11
07	07	06	06	05	07	09	08	03	08	07	08
12	12	11	09	08	11	12	12	11	11	10	12
11	10	09	08	07	09	11	10	10	12	10	12
09	09	10	08	07	10	11	10	11	11	09	11
11	11	12	10	09	10	14	13	11	12	11	14
13	14	15	09	10	12	15	14	11	13	13	14
09	08	09	08	09	10	09	08	09	10	09	10
10	09	12	08	11	09	11	11	10	12	11	13
11	10	11	09	08	12	12	11	10	13	12	14
10	12	10	10	10	10	10	12	10	13	12	12
13	14	11	12	12	12	13	14		17	16	13
16	19	12	17	17	12	17	19	06	19	20	13
20	21	14	19	20	14	21	21	13	23	23	16
15	15	09	14	15	11	15	15	06	17	17	10
14	16	12	14	17	13	15	14	10	20	19	16
19	20	18	20	20	15	21	20	16	21	22	16
12	12	09	13	13	06	12	11	07	13	13	10
13	12	10	14	10	09	13	12	15	15	14	12
28	29	28	27	27	25	31	32	32	34	33	33
26	26	19	25	25	22	24	25	20	27	26	21
69	58	98	1 05	90	1 18	1 13	60	1 01	1 18	99	1 29
16	14	10	19	16	11	13	13	12	15	13	10
11	11	09	09	09	10	10	09	17	13	19	12
09	08	07	10	10	18	10	08	06	14	11	13
16	15	18	17	19	15	18	21	14	23	23	21
2 00	1 91	1 00	2 40	1 93	1 10	1 69	1 65	78	2 00	1 83	1 04
30	28	26	33	30	28	30	28	26	20	28	26
37	34	31	32	30	33	34	32	33	33	32	34
18	17	10	20	17	12	18	17	11	19	17	10
18	18	11	20	17	12	17	18	11	18	18	11
19	18	12	21	18	13	21	20	11	20	19	12
1 08	1 07	81	1 12	1 02	97	1 15	1 04	87	1 10	1 02	85
87	90	69	94	87	75	97	95	60	91	93	68
1 47	1 36	28	1 58	1 41	95	1 38	1 34	80	1 24	1 22	90
11	19	07	11	10	07	09	08	05	11	10	08
14	12	08	19	17	09	14	13	09	18	16	10
7 47	7 18	3 08	7 27	7 00	5 00	5 78	6 42	12 00	8 75	8 80	8 35
3 85	3 76	4 62	3 21	2 80	3 80	3 87	3 77	5 00	4 11	3 70	4 17
3 17	3 37	4 50	3 03	2 75	4 50	2 00	2 00	4 00	3 24	3 11	4 10
71	61	30	88	70	36	69	56	22	85	60	33
20	18	13	21	19	12	22	18	11	22	20	12
26	20	14	26	22	14	27	25	13	25	23	15
34	31	23	29	30	14	34	28	35	35	30	19
25	33	25	35	39	15	41	27	40	39	34	20
33	28	19	33	32	19	37	29	20	33	28	19
46	38	32	51	46	30	54	49	25	47	40	23
16	14	10	20	16	10	17	14	11	19	16	11
32	28	24	35	29	27	32	26	25	34	30	26
1 03	87	66	89	89	73	95	86	65	87	72	64
5 36	4 97	3 83	5 58	4 73	3 90	5 62	5 10	4 25	5 70	4 90	4 03
13 02	12 79	6 90	12 25	12 18	12 10	14 80	12 00	16 00	15 20	14 20	17 10
17 72	17 45	9 80	17 52	17 12	19 87	19 80	16 14	20 00	21 95	20 15	17 15
4 43	4 26	3 93	4 75	3 80	3 62	5 80	4 22	4 25	5 17	4 47	4 60
4 12	4 04	3 00	3 95	3 35	3 00	4 50	3 84	3 50	4 40	4 14	3 03

Table showing the average retail prices of provisions, groceries, and other leading articles of  
in the respective years

Articles.	Ohio.			Indiana.			Michigan.		
	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
<b>PROVISIONS.</b>									
Flour, wheat, superfine..... per bbl.	\$12 71	\$6 41	\$5 70	\$10 87	\$5 06	\$6 12	\$10 87	\$6 17	\$6 00
Flour, wheat, extra family..... do.	12 88	6 89	6 37	12 16	6 38	6 50	11 67	7 14	6 75
Flour, rye..... do.	7 70	4 90	5 19	8 22	5 37	5 30	8 43	6 09	6 00
Corn-meal..... do.	3 63	3 53	3 08	4 05	3 75	3 30	4 54	4 18	3 60
Beef, fresh, roasting-pieces..... per lb.	15 14	12 12	12 12	18 12	12 13	15 14	15 14	14 16	16
Beef, fresh, soup-pieces..... do.	10 08	08 08	08 08	09 08	10 10	10 08	10 08	11 11	11
Beef, fresh, rump-steaks..... do.	16 15	12 12	12 12	14 13	12 12	16 15	16 15	15 15	15
Beef, corned..... do.	11 10	10 10	11 11	12 12	08 10	11 10	11 10	10 10	10
Veal, fore quarters..... do.	08 08	08 08	07 07	10 09	10 10	10 08	10 08	15 15	15
Veal, hind quarters..... do.	11 10	10 10	12 12	12 12	12 12	12 12	12 12	11 11	18
Veal-outlets..... do.	15 14	12 12	14 13	13 13	14 14	16 18	14 16	18 18	18
Mutton, fore quarters..... do.	12 08	09 09	09 08	08 08	08 08	08 08	08 08	07 09	09
Mutton, leg..... do.	11 10	12 12	10 09	12 12	11 11	12 12	11 12	14 10	10
Mutton-chops..... do.	12 11	13 13	11 10	10 11	11 11	12 12	12 12	12 12	12
Pork, fresh..... do.	14 14	11 11	13 14	12 12	16 15	16 15	16 15	18 18	18
Pork, corned or salted..... do.	17 17	13 13	15 16	16 13	18 19	18 19	18 19	13 13	13
Pork, bacon..... do.	16 17	14 14	16 19	13 13	19 18	19 18	19 18	18 18	18
Pork, hams, smoked..... do.	21 20	16 16	21 22	16 16	23 21	23 21	23 21	21 21	21
Pork, shoulders..... do.	17 16	12 12	16 17	13 13	16 16	16 16	16 16	18 18	18
Pork, sausages..... do.	18 18	14 14	16 17	17 13	19 18	19 18	19 18	16 16	16
Lard..... do.	19 21	15 15	19 21	18 18	21 23	23 23	23 23	23 23	23
Cod-fish, dry..... do.	11 11	09 09	11 11	10 10	11 10	11 10	11 10	10 10	10
Mackerel, pickled..... do.	15 14	12 12	13 13	13 13	16 15	16 15	16 15	15 15	15
Butter..... do.	33 31	27 27	28 30	32 32	36 36	36 36	36 36	38 38	38
Cheese..... do.	18 20	17 23	23 23	18 18	23 23	23 23	23 23	13 13	13
Potatoes..... per bush.	96 44	92 79	42 1 12	1 12	79 42	79 42	79 42	75 75	75
Rice..... per lb.	14 12	10 14	13 10	13 10	10 10	15 13	15 13	13 13	13
Beans..... per qt.	12 09	09 12	11 10	10 10	18 09	18 09	18 09	09 09	09
Milk..... do.	06 05	06 06	07 07	07 07	08 08	08 08	08 08	07 06	06
Eggs..... per doz.	23 24	20 20	17 22	22 21	23 23	23 23	23 23	23 23	23
<b>GROCERIES, ETC.</b>									
Tea, Oolong or other good black per lb.	1 64	1 44	1 01	1 69	1 64	94	1 60	1 46	1 00
Coffee, Rio, green..... do.	33 20	26 32	26 32	32 32	30 37	34 31	34 31	25 25	25
Coffee, Rio, roasted..... do.	36 32	31 36	32 36	32 36	37 37	37 34	37 34	30 30	30
Sugar, good brown..... do.	16 15	10 17	16 11	16 11	16 15	16 15	16 15	15 15	15
Sugar, yellow C..... do.	16 16	11 18	17 11	17 11	17 16	17 16	17 16	16 16	16
Sugar, coffee B..... do.	19 17	12 16	18 18	18 18	19 18	19 18	19 18	12 12	12
Molasses, New Orleans..... per gal.	1 33	1 12	95 1 14	1 08	92 1 12	1 01	1 01	96 96	96
Molasses, Porto Rico..... do.	1 07	96 84	1 00	90 75	1 06	96 96	96 96	68 68	68
Sirup..... do.	1 44	1 29	96 1 46	1 33	1 10	1 46	1 33	68 68	68
Soap, common..... per lb.	12 11	08 10	10 10	07 07	12 11	12 11	12 11	06 06	06
Starch..... do.	14 13	10 12	12 12	08 08	17 15	17 15	17 15	10 10	10
Fuel, coal..... per ton.	6 59	6 27	3 75	5 03	5 05	3 37	12 08	11 08	11
Fuel, wood, hard..... per cord.	3 45	3 43	3 86	3 49	3 42	3 75	3 60	3 26	3
Fuel, wood, pine..... do.	4 00	4 00	3 50	3 50	3 50	3 50	3 50	3 50	3
Oil, coal..... per gal.	60 45	22 22	64 60	21 21	67 67	67 67	67 67	47 47	47
<b>DOMESTIC DRY-GOODS, ETC.</b>									
Shirtings, brown, 4-4, standard quality..... per yd.	22 18	11 20	18 12	21 17	19 19	19 19	19 19	15 15	15
Shirtings, bleached, 4-4, standard quality..... per yd.	27 22	14 24	20 15	27 22	19 19	19 19	19 19	15 15	15
Sheetings, brown, 9-8, standard quality..... per yd.	25 21	17 25	21 25	30 25	25 25	25 25	25 25	10 10	10
Sheetings, bleached, 9-8, standard quality..... per yd.	34 29	20 30	25 30	38 31	30 30	30 30	30 30	15 15	15
Cotton-flannel, medium quality..... do.	31 27	17 33	28 30	35 30	44 36	44 36	44 36	25 25	25
Tickings, good quality..... do.	43 37	31 45	39 30	44 36	44 36	44 36	44 36	15 15	15
Prints, Merrimac..... do.	19 14	10 16	14 11	17 13	13 13	13 13	13 13	10 10	10
Mousseline de laines..... do.	28 24	20 27	24 22	28 23	23 23	23 23	23 23	15 15	15
Satinets, medium quality..... do.	1 09	76 84	94 85	75 75	92 85	92 85	92 85	65 65	65
Boots, men's heavy..... per pair.	5 78	5 10	4 60	5 41	5 05	4 83	5 76	5 16	5 00
<b>HOUSE-RENT.</b>									
Four-roomed tenements..... per month.	8 69	7 53	8 92	9 97	9 20	9 00	8 49	7 95	12 00
Six-roomed tenements..... do.	12 79	10 73	12 77	12 70	12 23	13 16	11 89	11 15	16 00
<b>BOARD.</b>									
For men, mechanics, &c..... per week.	4 50	4 03	4 10	4 31	4 09	4 63	4 73	4 54	5 00
For women in factories..... do.	3 97	3 46	2 94	3 87	3 70	3 33	4 65	4 09	4 50

consumption; also prices of house-rent and board, in the towns of the following Western States, 1867, 1869, and 1874.

Illinois.			Wisconsin.			Minnesota.			Iowa.		
1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
\$10 51	\$6 19	\$6 60	\$8 67	\$5 35	\$5 33	\$8 15	\$4 30	\$5 41	\$8 10	\$5 28	\$5 67
12 50	7 50	8 04	9 66	5 91	6 33	8 85	4 71	7 17	9 32	6 15	7 13
8 25	6 09	6 05	7 10	4 76	4 62	6 07	4 64	5 67	4 81	4 82	5 00
4 10	3 75	4 12	4 47	3 75	4 00	6 03	4 85	4 37	3 34	3 59	2 75
12	11	11½	14	13	11	12	12	10½	12	11	10½
09	08	08	07	09	07½	09	08	07½	07	08	08½
13	12	10½	15	13	11½	13	12	11½	12	13	11
10	10	08½	10	09	10	10	10	07½	09	10	09½
09	11	13	13	10	10	09	08	08½	09	09	11½
12	11	13	13	11	11	11	11	10½	12	12	12½
13	12	14½	14	13	12½	14	13	11½	12	13	13½
10	10	09½	12	09	08½	09	08	09½	08	08	10
11	12	12½	15	12	10	20	11	11½	11	10	12½
12	12	13	13	11	11	14	13	13	11	11	12½
13	14	12½	14	14	11	12	13	11½	11	13	11½
16	17	12	17	17	19	17	17	12½	15	16	11½
18	19	15	18	19	12	19	19	13½	17	19	14
20	22	16	20	20	13½	20	22	15½	19	21	15
15	16	11½	16	16	10½	17	16	11	15	17	11½
16	17	13	18	18	13½	18	19	12½	14	16	12½
19	21	15½	20	22	16½	20	21	15½	18	19	15½
12	11	09½	12	11	10	12	12	09	12	12	09½
15	14	12	14	14	12½	14	14	12½	14	15	11½
29	29	26½	30	30	24	31	27	25½	27	26	19½
23	23	16½	22	22	15½	20	24	17½	23	22	13½
1 09	41	91	71	52	53	64	63	79	64	44	48
15	13	11	14	13	10	15	14	12	16	14	10
13	11	09½	10	09	09	12	09	09	13	10	07
07	07	06½	07	07	05½	06	06	06	07	07	05½
18	23	20	21	20	20	22	21	19	18	19	13½
1 65	1 55	1 00	1 60	1 50	1 12	1 53	1 45	1 01	1 70	1 56	1 00
30	28	27	33	30	25½	34	29	29	33	29	25½
36	33	33	36	35	35	39	33	34	36	34	30
17	16	10	16	15	09½	16	15	11	18	16	10½
18	17	11	17	16	10½	17	16	11½	19	17	11½
19	18	11½	18	17	11½	18	17	12	20	19	11½
1 04	98	91	1 15	99	1 00	1 30	1 10	1 03	1 19	1 04	90
99	88	69	1 03	91	60	1 03	89	74	1 09	94	75
1 47	1 36	97	1 38	1 26	1 00	1 47	1 25	96½	1 50	1 14	95
10	09	06	12	11	09½	11	10	08	11	10	08½
14	13	11½	13	14	10½	14	14	11	16	15	11½
4 47	4 33	6 73	11 08	11 54	9 00	-----	-----	12 25	6 31	5 48	5 08
4 71	4 44	5 66	5 25	5 15	4 50	4 44	4 23	5 00	4 52	4 78	4 83
4 00	3 62	3 80	3 41	3 15	2 41	2 96	2 82	3 50	3 20	3 00	4 50
66	52	24½	72	55	19	76	57	33½	72	56	27½
90	18	12½	22	18	11½	22	19	11½	22	18	12½
25	22	15½	26	23	15	27	23	13	29	23	15
33	27	17½	32	27	30	25	20	21½	29	23	20
38	33	20½	41	34	-----	31	26	24	38	29	24½
32	27	18	31	27	20½	36	30	20	40	30	17½
47	39	26	44	38	27½	48	40	22½	50	39	25
17	14	10	13	14	10½	17	14	10	18	14	10
24	24	20	26	24	20½	27	24	20½	31	25	21½
99	83	76½	98	87	62½	1 00	81	70½	1 11	82	71½
5 66	5 07	5 51	6 15	5 28	5 17	4 57	4 80	4 91	5 64	4 96	4 58
10 87	10 84	10 60	8 46	8 24	6 33	11 28	10 57	9 75	11 21	11 54	7 00
14 98	14 97	15 82	11 41	11 30	10 00	15 78	14 07	17 87	15 32	13 11	10 87
4 41	4 26	4 25	4 68	4 44	3 75	4 61	4 22	3 87	4 17	4 17	3 75
4 08	3 91	3 66	4 01	3 60	2 92	3 92	3 75	2 75	3 65	3 68	3 25



Table showing the average retail prices of provisions, groceries, and other leading  
WESTERN STATES—Continued.

Articles.	Kansas.			Nebraska.			Average for Western States.		
	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
<b>PROVISIONS.</b>									
Flour, wheat, superfine ..... per bbl.	\$9 36	\$6 39	\$6 25	\$12 00	\$6 75	.....	\$10 14	\$5 83	\$5 90
Flour, wheat, extra family ..... do.	10 21	7 68	.....	11 00	5 25	.....	10 92	6 43	6 91
Flour, rye ..... do.	.....	5 00	.....	.....	.....	.....	7 23	5 21	5 42
Corn-meal ..... do.	3 70	3 15	3 50	6 00	4 50	.....	4 46	3 89	3 58
Beef, fresh, roasting-pieces ..... per lb.	12	12	05	20	13	.....	14	12	11
Beef, fresh, soup-pieces ..... do.	08	08	05	12	05	.....	09	08	08
Beef, fresh, rump-steaks ..... do.	13	12	08	20	15	.....	14	13	11
Beef, corned ..... do.	10	09	04	12	09	.....	10	10	08
Veal, fore quarters ..... do.	12	12	.....	15	11	.....	10	09	10
Veal, hind quarters ..... do.	13	13	.....	20	13	.....	13	11	12
Veal-cutlets ..... do.	15	14	03	20	17	.....	14	14	12
Mutton, fore quarters ..... do.	09	09	.....	15	11	.....	14	08	09
Mutton, leg. .... do.	11	11	.....	20	13	.....	13	11	11
Mutton-chops ..... do.	11	10	.....	20	15	.....	13	11	12
Pork, fresh ..... do.	12	14	07	20	12	.....	13	13	11
Pork, corned or salted ..... do.	17	16	07	22	17	.....	16	17	11
Pork, bacon ..... do.	21	20	12	25	23	.....	19	19	13
Pork, hams, smoked ..... do.	22	23	16	30	25	.....	21	14	15
Pork, shoulders ..... do.	17	17	10	20	16	.....	16	16	13
Pork, sausages ..... do.	16	17	15	20	17	.....	17	17	13
Lard ..... do.	19	21	14	20	20	.....	19	21	15
Cod-fish, dry ..... do.	14	11	10	10	11	.....	11	11	09
Mackerel, pickled ..... do.	17	15	10	15	16	.....	15	14	10
Butter ..... do.	32	36	24	50	42	.....	33	31	24
Cheese ..... do.	23	23	25	30	27	.....	21	22	17
Potatoes ..... per bus.	1 10	38	75	1 50	33	.....	89	51	78
Rice ..... per lb.	15	14	12	20	14	.....	15	13	11
Beans ..... per qt.	11	11	10	20	07	.....	13	09	09
Milk ..... do.	09	09	07	10	07	.....	07	07	06
Eggs ..... per doz	26	28	20	50	35	.....	24	24	19
<b>GROCERIES, ETC.</b>									
Tea, Oolong or other good black. per lb.	1 80	1 56	1 12	1 75	1 50	.....	1 66	1 52	1 15
Coffee, Rio, green ..... do.	34	28	21	35	29	.....	33	28	27
Coffee, Rio, roasted ..... do.	42	33	33	40	34	.....	37	33	33
Sugar, good brown ..... do.	18	16	10	20	15	.....	17	15	10
Sugar, yellow C ..... do.	21	17	11	21	16	.....	18	16	09
Sugar, coffee B ..... do.	23	19	12	22	18	.....	19	18	11
Molasses, New Orleans ..... per gall.	1 13	88	55	.....	36	.....	1 17	85	69
Molasses, Porto Rico ..... do.	97	80	60	.....	44	.....	1 03	85	71
Sirup ..... do.	1 54	1 30	1 00	1 50	1 37	.....	1 47	1 28	95
Soap, common ..... per lb.	12	10	10	15	12	.....	11	10	08
Starch ..... do.	14	12	20	20	17	.....	15	14	10
Fuel, coal ..... per ton	11 94	8 66	4 50	18 09	14 00	.....	9 50	8 30	6 30
Fuel, wood, hard ..... per cord	5 71	5 54	4 25	14 00	8 50	.....	5 48	4 74	4 50
Fuel, wood, pine ..... do.	7 00	5 00	.....	.....	.....	.....	3 70	3 24	3 64
Oil, coal ..... per gall.	76	59	35	75	60	.....	70	53	26
<b>DOMESTIC DRY-GOODS, ETC.</b>									
Shirtings, brown, 4-4, standard quality ..... per yard.	25	20	15	25	18	.....	22	18	12
Shirtings, bleached, 4-4, standard quality ..... per yard.	30	25	20	30	22	.....	28	22	15
Sheetings, brown, 9-8, standard quality ..... per yard.	48	37	17	.....	22	.....	31	25	19
Sheetings, bleached, 9-8, standard quality ..... per yard.	54	42	23	.....	27	.....	37	30	20
Cotton-fannel, medium quality ..... do.	39	27	20	.....	35	.....	34	29	18
Tickings, good quality ..... do.	52	37	25	30	33	.....	45	37	26
Prints, Merrimac ..... do.	18	13	11	.....	15	.....	17	14	10
Mousseline de laines ..... do.	29	23	15	.....	25	.....	27	24	19
Satinets, medium quality ..... do.	1 11	76	75	90	1 01	.....	1 00	84	72
Boots, men's heavy ..... per pair.	5 50	4 83	3 62	6 50	5 50	.....	5 70	5 20	5 40
<b>HOUSE-RENT.</b>									
Four-roomed tenements ..... per mo.	16 71	18 43	9 00	40 00	27 50	.....	13 97	12 42	9 12
Six-roomed tenements ..... do.	23 44	26 14	15 00	75 00	40 00	.....	21 46	17 10	11 20
<b>BOARD.</b>									
For men, (mechanics, &c.) ..... per week.	5 00	4 64	3 75	7 00	5 75	.....	4 81	4 56	4 14
For women in factories ..... do.	4 71	4 33	2 63	7 00	5 00	.....	4 35	3 97	3 25

articles of consumption, with prices of house-rent and board, &amp;c.—Continued.

## PACIFIC STATES.

California.			Oregon.			Nevada.			Average for the Pacific States.*		
1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
\$6 96	\$5 71	\$5 00	\$5 57	\$4 78	\$4 75	\$16 60	\$11 83	\$8 00	\$9 71	\$7 44	\$5 92
7 07	7 73	5 33	6 10	4 90	4 92	21 25	11 46	8 50	11 47	8 03	6 25
10 00	11 00	6 00	.....	.....	6 00	17 25	15 17	.....	13 69	10 58	6 00
10 36	8 02	6 00	8 91	8 66	8 33	16 60	11 09	8 50	11 62	9 95	7 61
14	16	11½	11	11	09½	21	19	12	15½	15½	13
13	12	08	09	09	06½	19½	14	19½	12½	12	09
12	13	10	12	12	10	19	18	19½	14½	14½	11
11	13	10	09	10	08	16	15	19½	12	12½	10
12	14	10½	11	10	08	18	17	18	13½	13½	12
14	15	12½	12	12	10	20	19	18	15½	15½	13½
17	17	12½	13	14	11½	24	22	25	18	17½	16½
11	12	10	08	07	09½	14	14	19½	11	11	10
12	13	11½	10	09	11½	17	17	19½	13	13	13
13	14	11½	12	12	12½	19	20	15	14½	15½	13
13	14	12	09	09	12½	25	25	20	15½	16	14½
16	15	16	10	10	12½	32	27	20	19½	17½	16
18	20	17	14	14	14½	29	28	22	20½	20½	17½
21	21	20	18	19	14½	30	28	22	23	22½	18½
16	15	15	11	09	12½	25	23	20	17½	15½	15½
19	20	16	14	14	13½	33	30	20	22	21½	16
20	20	17	13	22	16½	29	28	20	20½	23½	17½
18	17	09	18	19	14	26	25	16	20½	20½	13
19	19	11	19	22	15½	37	27	20	25	22½	15½
46	47	43	32	32	34½	65	58	50	47½	46	42
24	24	22	23	23	23½	41	35	25	30	27	23
80	75	1 12	57	56	57½	3 50	2 12	1 25	1 62	1 15	99½
13	12	10	13	12	12½	21	20	14	15½	14½	12
11	08	03½	11	12	10	30	20	25	17½	13½	13
12	12	07	13	11	14½	25	22	15	16½	15	12½
47	46	37	32	32	30	1 33	98	50	70½	59½	39
1 09	1 04	73	1 14	1 06	87½	1 20	1 09	75	1 14	1 06	78
25	24	26	26	24	27½	34	33	33	29	27	29
36	34	33	45	39	30	57	48	37½	46	40½	33½
16	14	10½	15	15	14	24	21	14	18½	16½	13
10	16	12	18	17	16½	21	22	14	16½	12½	14
18	17	12½	17	16	17	21	20	14	18½	17½	14
1 32	1 16	1 00	1 12	1 06	.....	2 00	1 60	1 00	1 48	1 27	1 00
1 25	1 06	1 00	.....	.....	50	2 00	1 56	1 00	1 62	1 31	1 00
1 29	1 25	93	1 11	1 13	87	2 44	1 94	1 50	1 61	1 44	1 10
12	10	06	11	11	11	20	17	09½	14½	12½	09
26	22	15	23	22	20½	38	28	25	29	24	20
20 00	15 60	16 25	20 00	20 00	10 00	.....	.....	22 50	29 00	17 80	16 25
6 33	6 50	8 67	4 00	4 12	4 50	5 00	8 75	.....	5 11	6 46	6 68
5 00	5 18	8 00	3 25	3 25	3 67	14 00	9 43	16 00	7 42	5 93	9 22
1 12	1 00	40	93	89	50	2 00	1 48	75	1 35	1 12	55
90	17	12½	25	20	14½	28	20	12½	24½	19	13
24	20	13	27	22	15	29	23	12½	26½	21½	13½
41	39	16	27	22	30	67	47	30	45	36	25½
53	48	17	30	25	34	84	50	33	54	41	28
30	25	20	32	28	23½	39	32	18	33½	28½	20½
38	33	26	46	39	33½	45	38	37	43	36½	32
15	13	10	16	13	11	21	15	10	17½	13½	10½
31	26	21	28	23	27½	40	35	20	33	28	22½
1 00	22	87	1 06	92	86½	84	1 01	75	1 00	91½	82½
4 92	5 10	4 75	6 43	5 93	5 50	9 20	7 50	5 00	6 85	6 18	5 08
12 00	12 42	17 00	10 28	9 71	13 17	23 00	17 86	.....	15 09	14 86	15 08
16 30	20 16	31 00	14 66	13 16	18 50	31 20	22 71	.....	20 72	35 34	24 75
6 86	6 55	5 33	5 86	5 57	5 17	11 83	9 62	8 00	8 18	7 25	6 17
5 72	6 20	6 00	5 50	5 41	4 00	11 33	9 25	.....	7 52	6 95	5 00

\* In coin.

Table showing the average retail prices of provisions, groceries, and other leading articles of in the respective years

Articles.	Dakota.			Idaho.			Montana.		
	1867.	1869.	1874.	1867.	1869.	1874.	1867.	1869.	1874.
<b>PROVISIONS.</b>									
Flour, wheat, superfine ..... per bbl.	\$13 00	\$6 75	\$4 30	\$24 75	\$18 25	\$5 25	\$27 00	\$30 00	\$16 00
Flour, wheat, extra family ..... do.	15 00	7 00	5 00	22 00	15 50	6 00			18 00
Flour, rye ..... do.		7 00	4 75		19 00	7 00			16 00
Corn-meal ..... do.	12 00	6 00	4 50	26 00	18 33	7 50	33 00	26 00	17 00
Beef, fresh, roasting-pieces ..... per lb.	18	13	12½	28	25	12½	18	20	15
Beef, fresh, soup-pieces ..... do.	10	08	04	24	20	09	11	12	08
Beef, fresh, rump-steaks ..... do.	20	17	10	26	23	10½	18	20	10
Beef, corned ..... do.	15	13	08	27	22	11½	14	16	10
Veal, fore quarters ..... do.		15	08½	29	23	12½	21	20	10
Veal, hind quarters ..... do.		16	09½	33	25	15½	21	22	12½
Veal-cutlets ..... do.		18	15	33	25	12½	21	22	15
Mutton, fore quarters ..... do.	22	15	07½	29	24	10	21	20	12
Mutton, leg ..... do.	22	16	10	33	28	12½	21	22	15
Mutton-chops ..... do.	22	16	12½	33	28	12½	21	22	15
Pork, fresh ..... do.	24	16	12½	39	27	15	30	25	15
Pork, corned or salted ..... do.	30	25	15	41	31	17½	35	25	15
Pork, bacon ..... do.	45	27	16	40	41	17	35	27	25
Pork, hams, smoked ..... do.	45	33	17	47	44	22½	45	42	30
Pork, shoulders ..... do.	45	27	12½	35	34	16½	35	35	22½
Pork, sausages ..... do.		30	12½	63	38	20½	50	42	25
Lard ..... do.	50	27	15	43	42	22½	40	42	25
Cod-fish, dry ..... do.	35	22	10	44	39	21½		30	20
Mackerel, pickled ..... do.	40	22	10	45	38	25			25
Butter ..... do.	50	37	15	1 21	67	50	1 00	80	50
Cheese ..... do.	30	27	90	63	47	33½	30	45	35
Potatoes ..... per bus.	1 00	1 25	5 67	2 17	1 90	2 40	2 02	90	90
Rice ..... per lb.	30	18	12½	46	28	17½	25	40	20
Beans ..... per qt.		20	06½	55	34	10	52	27	12½
Milk ..... do.	10	17	05	45	38	12½	25	25	10
Eggs ..... per dos.	50	42	10	1 87	1 12	42½	1 62	1 12	60
<b>GROCERIES, ETC.</b>									
Tea, Oolong or other good black ..... per lb.	2 50	2 15	1 00	1 92	1 65	94	2 50	1 50	1 25
Coffee, Rio, green ..... do.	30	28	30	58	46	36½	50	45	35
Coffee, Rio, roasted ..... do.		60	35	75	55	50	1 00	75	40
Sugar, good brown ..... do.	30	21	10	36	27	17	40	25	18
Sugar, yellow O ..... do.	25	22	11	42	33	18	40	27	20
Sugar, coffee B ..... do.	22	18	12	46	37	17	40	30	20
Molasses, New Orleans ..... per gall.	2 00	1 25	1 00	5 00	3 00		4 00	2 75	2 00
Molasses, Porto Rico ..... do.	1 50	1 25	65				4 00	3 00	1 50
Sirup ..... do.		3 00	1 00	3 13	2 94	1 08	5 00	3 37	2 00
Soap, common ..... per lb.	24	19	10	29	26	18½	50	30	20
Starch ..... do.	25	20	10	60	45	31½	75	45	25
Fuel, coal ..... per ton.			8 00						12 00
Fuel, wood, hard ..... per cord.	7 00	5 50	3 00	11 00	5 00				
Fuel, wood, pine ..... do.	8 00	2 50	3 00	9 50	8 00	8 00	7 50	7 00	7 00
Oil, coal ..... per gall.	2 00	1 42	30	3 87	2 62	1 00	2 25	1 25	60
<b>DOMESTIC DRY-GOODS, ETC.</b>									
Shirts, brown, 4-4, standard quality ..... per yard.	30	22	12½	33	25	20½	36	26	12½
Shirts, bleached, 4-4, standard quality ..... do.	30	32	15	47	35	20½	43	30	17
Sheetings, brown, 9-8, standard quality ..... per yard.	35	30	11	62	62	20	65	35	40
Sheetings, bleached, 9-8, standard quality ..... do.	35	37	12	1 12	70	20	65	35	50
Cotton-fannel, medium quality ..... do.	50	45	20	75	52	31½	55	40	25
Ticking, good quality ..... do.	25	75	30	87	65	37½	69	62	25
Prints, Merrimac ..... do.	20	17	12½	24	25	12½	22	36	12½
Mousseline de laines ..... do.	35	27	25	40	33	37½	40	31	22½
Satinets, medium quality ..... do.	1 25	1 00	1 00	1 67	1 22	75	1 00	1 00	87½
Boots, men's heavy ..... per pair.	8 00	6 75	5 00	12 00	9 25	5 75	6 00	6 75	8 00
<b>HOUSE-RENT.</b>									
Four-roomed tenements ..... per mo.	30 00	25 00	10 00	62 50	27 50	17 50		50 00	18 00
Six-roomed tenements ..... do.	60 00	50 00	15 00	87 50	40 00	30 50		85 00	25 00
<b>BOARD.</b>									
For men, (mechanics, &c.) ..... per week.	4 50	6 50	4 00	16 37	12 12	7 50	20 00	10 00	8 00
For women in factories ..... do.	4 00	5 25		15 87	11 62		20 00	8 00	

consumption, with prices of house-rent and board, in the towns of the following Territories, 1867, 1869, and 1874.

New Mexico.			Arizona.		Colorado.		Washing- ton.	Wyo- ming.	Average for Territories.		
1867.	1869.	1874.	1867.	1869.	1867.	1869.	1874.	1874.	1867.	1869.	1874.
\$12 00	\$14 00	-----	\$31 00	\$25 00	\$17 88	\$12 43	\$5 50	\$8 50	\$20 93	\$16 07	\$7 95
15 00	15 00	\$10 00	25 00	25 00	15 00	12 80	6 00	10 00	17 75	15 06	9 17
-----	-----	-----	-----	-----	20 00	13 00	6 50	8 50	20 00	13 66	8 55
9 00	9 00	4 00	14 00	19 50	14 83	9 44	10 00	5 50	18 14	13 88	8 08
11	10	08	24	24	16	13	11	12	19	17	12
08	07	06	23	21	12	08	04	08	15	13	06
12	11	06	25	22	16	14	11	15	19	18	10
11	10	10	25	22	14	11	08	08	18	16	09
12	10	10	23	20	17	13	09	08	20	17	09
12	10	12	25	23	19	16	10	15	22	19	12
12	10	12	26	25	20	19	12	15	23	20	13
11	09	08	25	19	15	11	03	12	17	16	10
11	09	08	26	23	10	15	11	15	23	19	13
11	09	08	26	28	20	16	12	15	24	20	13
17	12	20	15	33	33	30	12	15	26	20	15
15	12	20	25	42	39	28	15	20	31	35	17
40	33	20	50	42	38	27	17	20	41	33	19
52	47	25	52	45	40	29	20	20	47	40	22
45	40	25	50	42	37	27	13	17	41	34	18
50	45	30	-----	50	57	29	12	15	55	50	19
50	40	20	47	40	39	30	17	25	45	37	21
40	40	25	42	38	34	24	12	15	39	31	17
25	25	25	60	50	36	30	10	20	41	27	19
1 12	75	60	1 25	1 00	84	46	37	40	99	71	42
64	45	75	80	67	40	32	25	25	53	44	35
6 12	4 62	-----	3 00	2 75	3 23	2 04	50	2 10	4 22	2 43	1 19
45	35	20	20	34	26	10	12	33	33	33	15
10	10	06	16	09	24	15	08	08	31	19	08
13	16	20	40	25	17	13	12	10	25	25	12
50	40	50	1 50	80	99	56	37	40	1 17	74	40
1 75	1 75	1 25	1 50	1 25	2 70	2 10	50	1 50	2 14	1 73	1 08
55	50	33	65	52	48	35	27	35	51	43	33
-----	-----	40	37	37	46	41	37	40	65	54	40
40	35	18	47	40	35	24	10	12	38	28	14
42	38	20	47	20	38	25	12	13	30	27	16
47	42	20	42	44	39	26	12	14	40	33	16
2 50	2 00	2 00	6 00	4 50	2 60	1 91	50	1 25	3 68	2 68	1 35
2 50	2 00	2 00	6 00	4 50	2 56	1 78	50	1 00	3 31	2 51	1 13
4 50	4 00	2 75	3 75	2 75	3 36	2 46	90	2 00	3 95	3 09	1 71
31	25	13	55	42	29	23	07	10	36	28	13
50	35	20	60	47	39	31	25	20	51	35	22
-----	-----	-----	-----	-----	9 50	7 20	3 00	8 50	9 50	7 20	9 40
5 00	7 00	4 50	4 75	4 00	11 50	9 33	4 00	-----	7 85	6 17	3 83
5 00	7 00	-----	4 50	3 00	5 62	4 21	4 00	7 00	6 42	5 37	5 70
4 50	2 75	1 25	3 75	3 00	2 00	1 35	50	40	3 06	2 06	71
33	22	20	20	20	37	25	12	18	31	23	14
33	22	20	25	25	40	27	18	25	36	28	19
44	30	45	25	25	43	33	10	22	46	37	25
44	20	45	30	30	48	37	10	45	56	40	30
62	43	30	37	37	50	38	20	35	55	43	26
51	33	25	25	25	61	43	25	30	53	50	29
33	22	12	15	15	24	56	10	10	25	28	12
61	57	30	25	25	46	31	25	22	44	34	27
28	62	20	75	75	1 08	77	75	-----	1 10	89	85
7 75	5 50	10 00	9 00	8 00	8 91	7 12	6 00	10 00	8 63	7 23	7 46
22 50	20 00	8 00	-----	-----	20 00	14 94	13 00	20 00	33 75	27 49	14 25
32 50	27 50	12 00	-----	-----	28 00	20 12	15 00	32 50	52 00	40 50	19 90
12 00	8 75	6 00	17 50	9 00	11 25	7 44	-----	8 00	13 60	8 97	6 70
12 00	8 75	-----	17 50	9 00	11 10	7 44	-----	-----	13 40	8 30	-----

Table showing the aggregate average retail prices of provisions, groceries, &c., in the towns of the United States in the respective years 1867, 1869, and 1874.

## RECAPITULATION.

Articles.	1867.	1869.	1874.
<b>PROVISIONS.</b>			
Flour, wheat, superfine..... per barrel.....	\$12 90	\$9 09	\$8 83
Flour, wheat, extra family..... do.....	13 66	9 56	7 93
Flour, rye..... do.....	11 33	8 03	6 24
Corn-meal..... do.....	8 07	6 55	5 24
Beef, fresh, roasting-pieces..... per pound.....	16	15½	13½
Beef, fresh, soup-pieces..... do.....	11	10½	09½
Beef, fresh, rump-steaks..... do.....	17	16	13½
Beef, corned..... do.....	14	13	10½
Veal, fore quarters..... do.....	14	12½	11½
Veal, hind quarters..... do.....	16	15	13½
Veal-outlets..... do.....	18½	17½	15½
Mutton, fore quarters..... do.....	13½	12	11½
Mutton, leg..... do.....	15	14½	14
Mutton-chops..... do.....	16½	16	15
Pork, fresh..... do.....	17	16½	14
Pork, corned or salted..... do.....	20½	21½	14½
Pork, bacon..... do.....	23	22½	15½
Pork, hams, smoked..... do.....	26½	24½	17½
Pork, shoulders..... do.....	21½	20	14
Pork, sausages..... do.....	26½	23½	16½
Lard..... do.....	24½	25	17½
Cod-fish, dry..... do.....	17½	16	11
Mackerel, pickled..... do.....	20½	17½	13½
Butter..... do.....	49½	44½	35½
Cheese..... do.....	29	27½	22½
Potatoes..... per bushel.....	1 62½	1 09½	99½
Rice..... per pound.....	17½	16½	11½
Beans..... per quart.....	16½	13	10½
Milk..... do.....	12	11	9½
Eggs..... per dozen.....	49	40½	36
<b>GROCERIES, ETC.</b>			
Tea, Oolong or other good black..... per pound.....	1 60	1 43	99
Coffee, Rio, green..... do.....	31½	31	26½
Coffee, Rio, roasted..... do.....	43	38½	34½
Sugar, good brown..... do.....	20½	17½	11½
Sugar, yellow C..... do.....	20½	18½	13
Sugar, coffee B..... do.....	22	20½	13½
Molasses, New Orleans..... per gallon.....	1 57	1 31	98
Molasses, Porto Rico..... do.....	1 43	1 22	84
Sirup..... do.....	1 80½	1 58½	1 02½
Soap, common..... per pound.....	16	13½	09½
Starch..... do.....	22	18½	13½
Fuel, coal..... per ton.....	10 83	10 03	9 11
Fuel, wood, hard..... per cord.....	5 71	5 44	5 30
Fuel, wood, pine..... do.....	5 00	4 53	5 42
Oil, coal..... per gallon.....	1 20	90	32½
<b>DOMESTIC DRY-GOODS, ETC.</b>			
Shirtings, brown, 4-4, standard quality..... per yard.....	23½	20	12½
Shirtings, bleached, 4-4, standard quality..... do.....	27½	23	15
Sheetings, brown, 9-8, standard quality..... do.....	34	28½	20
Sheetings, bleached, 9-8, standard quality..... do.....	40½	33½	22½
Cotton-flannel, medium quality..... do.....	35½	30½	19½
Tickings, good quality..... do.....	45½	38½	27½
Prints, Merrimac..... do.....	18½	17	16½
Mouseline de laine..... do.....	31½	27	22½
Satinets, medium quality..... do.....	86½	79½	73½
Boots, men's heavy..... per pair.....	6 22	5 56	5 05
<b>HOUSE-RENT.</b>			
Four-roomed tenements..... per month.....	14 92	13 52	11 83
Six-roomed tenements..... do.....	22 09	21 80	16 27
<b>BOARD.</b>			
For men, (mechanics, &c.)..... per week.....	6 79	5 65	5 01
For women in factories..... do.....	6 06	5 00	3 33

V.—EXPENDITURES OF WORKMEN'S FAMILIES.  
 Table showing the average weekly expenditures of the families of workmen in the manufacturing towns of the following New England States, with their average weekly earnings, in the year 1874.

Articles.	MAINE.					NEW HAMPSHIRE.					CONNECTICUT.				
	Lewiston.	Camden.	Lisbon.	Portsmouth.	Newmarket.	Keene.	Fisherville.	Manchester.	Ashland.	Dover.	Berlin.	New Britain.	3 children and adults.	3 children and adults.	3 children and adults.
Flour and bread	\$0 95	\$3 00	\$0 41	\$0 80	\$0 40	\$0 50	\$0 80	\$1 00	\$1 50	\$1 00	\$1 00	\$1 00	\$0 96	\$1 00	\$0 96
Fresh, corned, salted, and smoked meats	1 75	2 00	54	90	1 00	1 00	1 50	1 35	1 50	1 25	2 00	2 00	38	2 00	38
Lard	18		27	15	10	10	55	54	60	33	25	25	19	25	19
Butter	70	50	46	50	25	1 00	75	66	70	70	40	40	57	40	57
Cheese	25		14	25			20	36	25	25	20	20	06	20	06
Sugar and molasses	50	1 00	42	25	50	60	69	60	48	1 00	50	50	52	50	52
Milk	63	60	25	25	25	1 00	56	72	45	42	30	30	35	30	35
Coffee	10		30	90	05	10	12	10		05	25	25	12	25	12
Tee	15	30	09	12	05	10	42	10	44	03	15	10	48	15	48
Fish, fresh and salt	30	25	21	70	15	90	15	30	25	12	1 00	1 00	48	1 00	48
Soap, starch, salt, pepper, vinegar, &c.	30	25	21	10	10	95	37	25	30	25	50	50	11	50	11
Eggs	30	20	22	38	10	30	25	35	30	20	40	40	10	40	10
Potatoes and other vegetables	50	25	12	50	10	50	25	25	35	25	60	60	48	60	48
Fruits, green and dried	75	25	15	90	90	90	40		25	25	50	50		50	
Fuel	1 00	50	1 00	60	75	1 50	75	1 00	75	1 25	50	50	1 25	50	1 25
Oil or other light	08	25	03	20	25	25	13	75	15	08	25	25	23	25	23
Other articles	51		25	50	25	25				50					
Spirits, beer, and tobacco (if any)	3 50	1 50	2 10	1 25		3 00	40			50	30	30	04	2 00	04
House rent	75	25	25		50	50	40	5 00	1 05	3 00	2 00	2 10	10	2 00	10
For educational, religious, and benevolent objects															
Total weekly expenses	13 00	11 40	7 54	7 90	5 00	11 45	9 54	13 43	11 07	10 48	11 35	8 23			
Total expenses 52 weeks	676 00	592 80	393 08	410 80	261 00	595 40	496 08	698 36	575 64	544 96	590 30	428 23			
Clothing per year	125 00	30 00	125 00	40 00	250 00	50 00	*100 00	150 00	150 00	150 00	125 00	100 00			
Taxes per year	3 00	20 00	3 00	2 40	2 00	1 68	1 43	2 50	1 50	18 00	2 00	2 00			
Total yearly expenses	804 00	642 80	519 08	453 20	512 00	647 08	597 51	850 86	727 14	719 96	717 30	530 23			
Weekly earnings	18 00	18 00	10 50	9 24	20 00	18 00	12 00	24 00	127 45	18 00	13 50	10 50			
Yearly earnings, (52 weeks)	936 00	936 00	546 00	480 48	1,040 00	936 00	624 00	1,248 00	1,427 00	936 00	702 00	546 00			

\* Estimated.

† Including earnings of 3 children.

§ Lives in his own house.

|| House-rent free.

Table showing the average weekly expenditures of the families of workmen in the manufacturing towns of the following New England States, &amp;c.—Continued.

Articles.	MASSACHUSETTS.								RHODE ISLAND.			Average.
	Holden.	Dalton.	Freetown.	Newton.	East Hampton.	Stock-bridge.	Lowell.	Pittsfield.	Provi- dence.	Coventry.		
										Saltma- ste.	3 adults and 3 children.	
2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.
\$3 50	\$1 00	\$0 65	\$1 50	\$1 00	\$2 00	\$1 00	\$0 50	\$0 50	\$0 65	\$1 60	\$1 25	\$1 13
Flour and bread .....	2 00	2 00	2 00	2 50	2 50	2 50	1 50	2 00	1 25	1 30	1 75	1 69
Fresh, corned, salted, and smoked meats .....	05	10	05	05	05	05	05	05	15	10	05	08
Lard .....	05	10	05	05	05	05	05	05	40	1 00	05	06
Butter .....	05	10	10	18	15	05	1 50	15	40	05	05	09
Cheese .....	05	10	10	10	15	05	05	05	40	05	05	06
Sugar and molasses .....	05	10	10	10	15	05	05	05	40	05	05	06
Milk .....	05	10	10	10	15	05	05	05	40	05	05	06
Coffee .....	10	10	10	10	15	05	05	05	40	05	05	06
Tea .....	10	10	10	10	15	05	05	05	40	05	05	06
Fish, fresh and salt .....	20	25	20	20	20	20	20	20	20	20	20	20
Soap, starch, salt, pepper, vinegar, &c .....	25	25	17	25	30	30	25	30	25	25	25	25
Eggs .....	50	50	50	30	30	30	30	30	30	30	30	37
Potatoes and other vegetables .....	50	50	40	30	35	35	25	25	15	1 00	45	38
Fruits, green and dried .....	1 00	75	75	1 50	35	35	25	25	25	25	25	37
Fuel .....	1 00	75	75	1 50	35	35	25	25	25	25	25	37
Oil or other light .....	10	06	10	15	20	20	1 00	1 00	1 00	1 00	1 00	18
Other articles .....	20	25	10	15	20	20	06	10	23	25	20	45
Spirits, beer, and tobacco, (if any) .....	3 00	1 00	1 75	15	25	25	05	15	1 00	1 00	10	92
House-rent .....	1 50	20	1 50	75	3 00	75	3 00	1 12 1/2	4 00	1 25	70	9 15
For educational, religious, and benevolent objects .....	12 00	8 40	11 04	14 49	16 65	8 85	12 41	7 94 1/2	11 41	14 92	9 30	10 78
Total weekly expenses .....	624 00	436 40	574 08	753 48	885 80	460 30	645 32	413 14	583 32	775 84	483 60	560 56
Total expenses 52 weeks .....	50 00	45 00	50 00	100 00	150 00	50 00	100 00	100 00	150 00	100 00	100 00	106 65
Clothing per year .....	2 00	2 54	2 00	2 00	2 00	2 00	2 00	2 00	2 00	2 00	2 00	3 67
Taxes per year .....	676 00	464 34	776 08	885 48	1,017 80	512 30	747 32	515 14	751 32	876 84	508 60	670 32
Total yearly expenses .....	15 00	9 00	15 00	16 50	20 00	15 00	17 00	15 00	17 00	17 50	10 00	15 14
Weekly earnings .....	780 00	468 00	760 00	836 00	1,040 00	760 00	884 00	780 00	884 00	910 00	590 00	767 38
Yearly earnings (52 weeks) .....												

\* Estimated.

Table showing the average weekly expenditures of the families of workmen in the manufacturing towns of the following Middle States, with their average weekly earnings, in the year 1874.

Articles.	NEW YORK.				NEW JERSEY.		DELAWARE.				MARY- LAND.
	Buffalo.		New York.	Buffalo.	Little Falls.	Bridgeport.	Trenton.	Wilmington.		Newport.	Baltimore
	2 adults and 1 child.	2 adults and 1 child.	2 adults and 1 child.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 4 children.
Flour and bread.....	\$3 00	\$0 84	\$0 84	\$1 50	\$1 75	\$1 25	\$1 00	\$3 00	\$0 75	\$1 50	\$1 25
Meats, fresh, corned, salted, or smoked.....	2 50	2 38	2 38	4 00	1 00	1 50	3 50	3 95	1 75	2 25	1 50
Lard.....	1 00	50	50	1 32	70	1 32	1 50	60	1 00	1 35	40
Butter.....	1 00	50	50	1 44	70	1 30	1 50	60	1 00	1 35	80
Cheese.....	1 25	34	34	30	25	1 36	60	70	30	75	50
Sugar and molasses.....	1 25	49	49	50	50	1 36	60	70	30	75	50
Milk.....	60	19	19	48	40	38	60	35	30	1 00	35
Coffee.....	50	25	25	30	63	134	50	90	70	70	64
Tea.....	40	15	15	34	.....	50	60	50	50	.....	55
Fish, fresh and salt.....	60	40	40	36	54	54	50	35	60	95	30
Soap, starch, salt, pepper, vinegar, &c.....	70	35	35	30	40	60	95	30	30	70	.....
Eggs.....	50	1 00	1 00	1 00	50	95	1 00	45	50	50	60
Potatoes and other vegetables.....	60	28	28	1 00	.....	95	80	80	50	95	50
Fruits, green and dried.....	91	1 00	1 00	1 19	1 19	75	75	75	1 00	1 25	9 00
Fuel.....	10	06	06	20	20	90	25	95	85	95	90
Oil and other light.....	25	50	50	30	25	.....	50	.....	.....	.....	.....
Other articles.....	20	50	50	30	25	25	25	25	.....	40	25
Spirits, beer, and tobacco, (if any).....	1 75	3 60	3 60	Rent free.	1 00	2 25	2 50	1 75	3 25	3 00	3 50
House-rent.....	40	15	15	1 50	25	1 25	1 00	.....	1 00	95	1 00
For educational, religious, and benevolent objects.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total weekly expenses.....	15 00	13 12	13 12	15 70	9 02	13 514	17 66	10 64	12 25	14 80	14 16
Total for 52 weeks.....	780 00	682 24	682 24	816 40	500 34	702 78	918 32	548 03	637 00	769 60	736 32
Clothing per year.....	150 00	100 00	100 00	220 00	*40 00	100 00	115 00	*100 00	110 00	225 00	50 00
Taxes per year.....	.....	.....	.....	1 100 00	.....	4 00	7 00	94	3 25	14 00	7 51
Total yearly expenses.....	930 00	782 24	782 24	1,226 40	540 34	806 78	1,040 32	649 03	740 25	1,008 60	793 83
Weekly earnings.....	23 25	16 50	16 50	25 00	10 50	16 08	20 00	15 00	15 00	34 00	16 50
Yearly earnings, 52 weeks.....	1,157 00	858 00	858 00	1,300 00	546 00	836 16	1,040 00	760 00	780 00	1,768 00	858 00

† Taxes and interest on property.

\* Estimated.



Table showing the average weekly expenditures of the families of workmen in the manufacturing towns of the following Middle States, &amp;c.—Continued.

Articles.	PENNSYLVANIA.											Average of Middle States.
	Erie.	Reading.	Norris-town.	Philadel- phia.	Bethle- hem.	South Bethle- hem.	Philadel- phia.	Conaho- cocken.	Linwood.	Pittsburgh.	Harris- burg.	
	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 4 children.	2 adults and 4 children.	2 adults and 4 children.	2 adults and 5 children.	2 adults and 5 children.	
Flour and bread.....	\$0 75	\$0 80	\$1 00	\$1 15	\$1 00	\$0 85	\$1 25	\$0 40	\$1 00	\$1 50	\$1 00	\$0 80
Fresh, corned, salted, and smoked meats.....	1 50	1 00	1 50	2 30	25	30	3 50	50	1 50	3 80	3 00	1 00
Lard.....	36	32	32	16	25	30	16	.....	97	25	50	15
Butter.....	1 20	64	40	85	30	45	75	1 00	90	1 20	2 00	45
Cheese.....	15	1 25	50	54	38	37	50	50	25	25	40	52
Sugar and molasses.....	50	50	50	56	58	84	40	50	85	1 00	1 00	43
Milk.....	56	50	50	56	40	30	30	50	50	70	85	16
Coffee.....	38	38	35	55	45	30	25	50	33	40	60	33
Tea.....	12	20	20	30	10	16	25	50	25	50	30	25
Fish, fresh and salt.....	25	20	20	30	20	15	30	50	40	1 00	50	39
Soap, starch, salt, pepper, vinegar, &c.....	1 00	50	30	16	35	15	50	50	37	1 00	50	41
Eggs.....	60	35	40	40	30	15	50	50	50	60	50	25
Potatoes and other vegetables.....	1 00	1 50	40	1 05	95	90	50	50	60	1 00	50	45
Fruits, green and dried.....	75	30	30	30	30	100	25	1 00	25	1 00	50	20
Fuel.....	1 00	75	50	1 00	75	1 00	1 00	1 00	1 00	75	1 00	1 00
Oil or other light.....	15	25	10	24	15	90	30	50	20	10	15	12
Other articles.....	.....	10	.....	27	.....	.....	.....	1 00	1 00	.....	50	43
Spirits, beer, and tobacco, (if any).....	.....	.....	.....	30	2 50	2 50	6 00	1 00	1 50	75	.....	13
House-rent.....	50	4 50	05	35	1 00	1 00	.....	2 00	.....	2 00	2 00	9
Education, religion, and benevolence.....	.....	10	05	35	1 00	1 00	.....	.....	10	9 00	1 00	10
Total weekly expenses.....	10 78	12 75	8 23	13 67	8 41	8 07	15 86	11 60	11 36	90 75	21 30	8 33
Total expenses for 52 weeks.....	560 56	643 00	427 96	710 84	437 32	419 64	894 73	603 30	590 72	1,079 00	1,107 60	433 16
Clothing per year.....	150 00	100 00	90 00	413 00	50 00	40 00	100 00	50 00	75 00	875 00	175 00	40 00
Taxes per year.....	30 00	.....	.....	.....	2 25	70 00	.....	2 00	2 50	5 00	45 00	8 83
Total yearly expenses.....	740 56	773 00	507 96	823 84	489 57	529 64	984 73	655 30	668 32	1,359 00	1,387 60	481 99
Weekly earnings.....	15 00	16 00	10 00	25 62	15 00	13 00	30 40	30 00	28 00	38 50	28 00	9 45
Yearly earnings, (52 weeks).....	760 00	832 00	520 00	1,332 24	780 00	684 00	1,060 80	1,040 00	1,352 00	1,770 00	1,476 00	491 40

\* Estimated.

† Add about \$30 for medical attendance.

Table showing the average weekly expenditures of the families of workmen in the manufacturing towns of the following Western States, with their average weekly earnings, in the year 1874.

Articles.	OHIO.						INDIANA.		WISCONSIN.			
	Dayton.	Bellefontaine.	Eucyrus.	Mansfield.	Piqua.	Steubenville.	Cincinnati.	Madison.	Evansville.	Connersville.	Milwaukee.	Cedarburgh.
	2 adults.	2 adults and 2 children.	2 adults and 2 children.	2 adults and 2 children.	2 adults and 3 children.	3 adults and 4 children.	2 adults and 2 children.	2 adults and 2 children.	2 adults and 3 children.	2 adults and 4 children.	2 adults and 4 children.	2 adults and 2 children.
Flour and bread.....	\$0 40	\$0 75	\$0 30	\$1 10	\$1 00	\$1 00	\$0 75	\$0 70	\$0 90	\$0 75	\$0 87	.....
Meats, fresh, corned, salted, or smoked.....	1 25	75	1 00	1 75	1 40	3 50	1 60	1 75	1 50	1 50	2 50	.....
Lard.....	40	15	.....	06	15	22	25	40	25	30	50	.....
Butter.....	40	30	35	1 00	60	2 10	40	60	75	50	60	.....
Cheese.....	80	15	10	05	.....	80	12	15	.....	25	10	.....
Sugar and molasses.....	25	50	40	1 10	50	1 80	25	40	70	1 00	23	.....
Milk.....	25	30	35	56	30	1 00	25	15	35	40	30	.....
Coffee.....	30	25	15	30	30	75	35	50	50	40	20	.....
Tea.....	25	25	15	25	05	50	10	25	15	25	16	.....
Fish, fresh and salt.....	.....	.....	.....	.....	.....	.....	.....	95	15	25	10	.....
Soap, starch, salt, pepper, vinegar, &c.....	40	15	25	25	20	50	10	25	50	25	38	.....
Eggs.....	25	25	25	35	.....	50	50	40	10	30	30	.....
Potatoes and other vegetables.....	50	25	50	50	20	1 05	50	40	50	50	45	.....
Fruits, green and dried.....	.....	25	.....	25	.....	1 10	15	30	25	30	30	.....
Fuel.....	50	75	1 25	1 00	1 00	1 12	25	75	75	15	55	.....
Oil or other light.....	10	15	12	50	1 50	30	10	20	75	15	1 00	.....
Other articles.....	25	.....	50	1 00	1 00	1 40	25	30	70	.....	.....	.....
Spirits, beer, and tobacco, (if any).....	2 50	2 00	1 25	2 00	2 00	3 85	1 50	2 00	2 50	2 50	25	.....
House-rent.....	2 75	25	25	2 00	50	9 00	40	25	.....	20	3 00	.....
For educational, religious, and benevolent objects.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total weekly expenses.....	8 50	7 55	7 12	12 02	9 70	23 59	7 97	10 70	10 55	10 40	13 69	\$4 00
Total expenses 52 weeks.....	442 00	392 60	370 24	625 04	504 40	1,246 63	414 44	556 40	548 60	544 80	711 88	208 00
Clothing per year.....	100 00	125 00	*125 00	300 00	100 00	375 00	85 00	75 00	150 00	250 00	300 00	30 00
Taxes per year.....	9 00	5 00	.....	160 00	30 00	5 00	5 00	4 00	2 50	10 00	5 00	3 50
Total yearly expenses.....	551 00	522 60	495 24	1,085 04	624 40	1,606 63	504 44	635 40	701 10	804 80	1,016 88	241 50
Weekly earnings.....	14 00	15 00	15 00	96 00	15 00	42 31	11 00	12 00	.....	18 00	24 00	6 75
Yearly earnings, (52 weeks).....	728 00	780 00	780 00	1,352 00	780 00	2,200 00	572 00	624 00	.....	936 00	1,248 00	351 00

\* Estimated.

Table showing the average weekly expenditures of the families of workmen in the manufacturing towns of the following Western States, &amp;c.—Continued.

Articles.	ILLINOIS.						MINNE- SOTA.		IOWA.		KANSAS.		Average of Western States.
	Belleville.	West Belleville.	Chicago.	Metropo- lis.	Decatur.	Stearling.	Canton.	Rochester.	Burling- ton.	Boone.	Grasshop- per Falls.	2 adults and 3 children.	
	2 adults and 3 children.	2 adults and 4 children.	2 adults and 3 children.	2 adults and 4 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 1 child.	2 adults.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	
Flour and bread .....	\$1 00	\$1 25	\$0 97	\$0 65	\$0 25	\$1 00	\$1 00	\$0 75	\$0 75	\$0 50	\$1 00	\$1 00	\$0 90
Meat, fresh, corned, salted, and smoked .....	1 50	2 00	2 00	30 30	3 00	1 00	1 50	2 00	1 00	50 50	1 20	1 20	1 57
Lard .....	35	50	50	10 30	30 30	1 00	75	85	30	50 30	30 30	30 30	58
Butter .....	35	45	60	05 30	00 30	1 00	95	75	75	36 36	60 60	60 60	47
Cheese .....	30	50	70	05 30	1 50	1 00	75	1 35	50	18 18	85 85	85 85	10
Sugar and molasses .....	35	50	48	00 30	40 30	40 30	35 30	30 30	30 30	75 75	1 50	1 50	10
Milk .....	35	50	53	00 30	40 30	40 30	50 30	30 30	30 30	30 30	35 35	35 35	20
Coffee .....	35	50	53	00 30	40 30	40 30	50 30	30 30	30 30	30 30	35 35	35 35	31
Tea .....	15	25	25	10 30	25 30	25 30	10 30	35 30	25 30	25 30	30 30	30 30	21
Fish, fresh and salt .....	30	40	40	25 30	25 30	25 30	25 30	25 30	25 30	25 30	35 35	35 35	25
Peas, starch, salt, pepper, vinegar, &c .....	40	50	40	25 30	25 30	25 30	25 30	25 30	25 30	25 30	35 35	35 35	33
Eggs .....	40	50	30	25 30	25 30	25 30	25 30	25 30	25 30	25 30	35 35	35 35	33
Potatoes and other vegetables .....	00	75	32	10 50	50 50	50 50	2 25	50 50	50 50	40 40	75 75	75 75	57
Fruits, green and dried .....	15	25	18	25 50	50 50	10 50	50 50	50 50	25 10	25 10	50 50	50 50	32
Fuel .....	60	80	2 50	1 00	1 00	75 05	75 05	1 00	1 00	1 00	75 75	75 75	97
Oil or other light .....	30	40	10 50	20 30	50 50	05 10	10 10	10 10	40 10	12 10	10 10	10 10	94
Other articles .....	35	50	15	25 30	25 30	25 30	25 30	25 30	25 30	25 30	35 35	35 35	53
Spirits, beer, and tobacco, (if any) .....	1 00	1 00	30 30	2 00	2 00	10 10	2 50	2 50	20 20	15 15	25 25	25 25	47
House-rent .....	1 75	2 25	.....	2 00	2 50	2 50	2 50	2 50	25 25	25 25	1 00	1 00	2 02
For educational, religious, and benevolent objects .....	1 00	60 60	.....	50 50	25 25	05 05	.....	.....	25 25	20 20	25 25	25 25	08
Total weekly expenses .....	11 15	14 50	10 58	7 30	13 45	10 35	11 52	10 95	7 35	8 21	10 45	10 45	10 50
Total expenses 52 weeks .....	579 80	754 00	550 16	379 60	699 40	528 90	599 04	569 40	382 90	426 92	543 40	543 40	546 00
Clothing per year .....	100 00	150 00	190 00	105 00	150 00	100 00	*100 00	*190 00	900 00	150 00	100 00	100 00	154 76
Taxes per year .....	.....	.....	26 06	1 50	5 50	3 06	.....	.....	40 00	.....	6 00	6 00	18 35
Total yearly expense .....	679 80	904 00	698 92	576 10	854 90	641 90	699 04	669 40	693 90	576 92	708 40	708 40	714 75
Weekly earnings .....	15 00	24 00	.....	18 00	25 00	15 00	15 00	18 00	17 00	15 00	18 00	18 00	18 19
Yearly earnings, (52 weeks) .....	936 00	1,248 00	.....	936 00	1,300 00	780 00	780 00	936 00	864 00	780 00	936 00	936 00	945 88

\* Estimated.

Table showing the average weekly expenditures of the families of workmen in the manufacturing towns of the following Southern States, with their average weekly earnings, in the year 1874.

Articles.	VIRGINIA.			WEST VIRGINIA.		NORTH CAROLINA.	KENTUCKY.			
	Danville.	Huntington.	Charleston.	Huntington.	Charleston.	Tarboro'.	Louisville.			
	2 adults and 4 children.	2 adults and 2 children.	2 adults and 4 children.	2 adults and 2 children.	2 adults and 4 children.	2 adults and 3 children.	2 adults and 1 child.	2 adults and 3 children.	2 adults and 4 children.	2 adults and 6 children.
Flour and bread .....	\$1 00	\$0 43	\$1 00	\$0 43	\$1 00	\$1 30	\$1 00	\$1 00	\$1 50	\$1 00
Meats, fresh, corned, salted or smoked .....	1 75	1 63	1 00	1 63	1 00	1 75	30	1 50	1 50	75
Lard .....	25	30	30	30	30	60	35	75	30	95
Butter .....	50	50	75	50	75	75	30	60	50	30
Cheese .....	25	15	50	15	50	60	30	90	30	75
Sugar and molasses .....	70	98	1 40	98	1 40	10	30	30	30	95
Milk .....	30	40	30	40	30	30	40	45	60	75
Coffee .....	25	25	30	25	30	35	10	10	50	10
Tea .....	30	10	30	10	30	30	10	10	10	40
Fish, fresh and salt .....	30	25	30	25	30	15	40	15	20	50
Soap, starch, salt, pepper, vinegar, &c. ....	25	25	24	25	24	10	25	25	75	40
Eggs .....	25	25	30	25	30	40	30	50	1 00	10
Portulacae and other vegetables .....	25	25	30	25	30	30	15	25	1 00	75
Fruits, green and dried .....	1 00	30	70	30	70	1 00	75	25	2 00	10
Fuel .....	10	10	10	10	10	15	15	10	30	30
Oil or other light .....	10	10	10	10	10	15	50	10	2 00	1 00
Other articles .....	25	50	10	50	10	30	75	25	3 00	1 00
Spirits, beer, and tobacco, (if any) .....	2 00	2 50	3 00	2 50	3 00	3 00	1 25	2 50	2 50	5 00
House-rent .....	25	25	55	25	55	55	90	70	25	25
Educational, religious, and benevolent objects .....	10 60	11 04	7 34	11 04	7 34	11 80	9 10	10 80	15 85	36 10
Total weekly expenses .....	551 20	574 08	381 68	574 08	381 68	613 60	473 30	561 60	824 20	1,357 20
Clothing per year .....	58 00	100 00	75 00	100 00	75 00	114 40	150 00	100 00	250 00	300 00
Taxes per year .....	10 00	3 00	5 00	3 00	5 00	4 00	.....	3 00	10 00	2 50
Total yearly expenses .....	619 20	677 08	501 68	677 08	501 68	732 00	623 30	711 60	1,084 90	1,659 70
Weekly earnings .....	12 50	16 50	9 00	16 50	9 00	14 00	12 00	14 00	20 00	34 00
Yearly earnings, (52 weeks) .....	650 00	858 00	468 00	858 00	468 00	728 00	624 00	728 00	1,040 00	1,768 00

\* Owns land, and pays \$45 taxes in all.

Table showing the average weekly expenditures of the families of workmen in the manufacturing towns of the following Southern States, &amp;c.—Continued.

Articles.	TENNESSEE.				ALABAMA.		LOUISIANA.		TEXAS.				Average of Southern States.
	Chattanooga. 2 adults and 4 children.	Memphis. 2 adults and 3 children.	Lawrenceburg. 2 adults and 11 children.	Tallahassee. 2 adults and 4 children.	Baton Rouge. 2 adults and 3 children.	Galveston. 2 adults and 3 children.	Dallas. 2 adults and 3 children.	Austin. 2 adults and 4 children.	San Antonio. 2 adults and 4 children.				
Flour and bread.....	\$1 00	\$1 50	\$3 00	\$2 25	\$1 00	\$1 37½	\$0 50	\$1 20	\$2 00	Colo.	\$1 31		
Meat, fresh, corned, salted, or smoked.....	1 00	2 00	1 50	1 75	3 00	3 00	60	1 05	1 75		1 53		
Lard.....	40	30	50	37	50	25	20	50	25		40		
Butter.....	30	30	1 00	60	60	1 00	50	40	50		66		
Cheese.....	25	25	2 00	80	25	1 00	50	50	1 25		91		
Sugar and molasses.....	75	20	2 00	80	75	1 00	50	35	50		78		
Milk.....	35	25	40	55	35	50	10	1 00	50		51		
Coffee.....	30	40	1 00	55	25	25	25	40	50		47		
Tea.....	50	05	50	50	25	25	25	25	50		34		
Fish, fresh and salt.....	25	25	50	95	50	1 00	25	65	50		28		
Soap, starch, salt, pepper, vinegar, &c.....	50	25	50	95	50	1 00	25	50	50		41		
Eggs.....	25	25	50	95	50	1 00	25	50	50		31		
Potatoes and other vegetables.....	50	1 00	75	1 00	1 00	60	40	75	25		64		
Fruits, green and dried.....	50	75	75	1 00	1 00	25	25	25	25		43		
Fuel.....	1 00	60	1 75	95	1 50	2 00	50	50	1 00		97		
Oil or other light.....	25	20	25	25	50	50	10	25	15		32		
Other articles.....	25	50	1 00	75	1 00	50	10	25	15		58		
Spirits, beer, and tobacco, (if any).....	25	50	1 00	75	1 00	50	10	25	15		67		
House-rent.....	2 50	2 00	1 00	75	3 00	6 25	2 85	3 75	1 50		3 07		
Educational, religious, and benevolent objects.....	25	50	50	95	50	60	60	3 75	1 00		40		
Total weekly expenses.....	11 05	11 60	13 75	10 40	18 20	28 07½	7 70	12 30	13 19½		13 18		
Total expenses 52 weeks.....	621 40	603 20	715 00	540 80	946 40	1,511 50	400 40	639 60	682 50		685 30		
Clothing per year.....	100 00	50 00	200 00	150 00	150 00	150 00	40 00	150 00	50 00		128 24		
Taxes per year.....	.....	.....	.....	3 00	1 00	.....	.....	2 00	.....		4 35		
Total yearly expenses.....	721 40	653 20	915 00	693 80	1,097 40	1,661 90	440 40	791 00	732 50		818 07		
Weekly earnings.....	15 00	11 00	18 90	10 00	25 00	31 00	12 00	18 75	15 00		16 00		
Yearly earnings, (52 weeks).....	780 00	572 00	987 48	520 00	1,300 00	1,612 00	624 00	975 00	780 00		830 72		

Table showing the average weekly expenditures of the families of workmen in the manufacturing towns of the following Pacific States and Territories, with their average weekly earnings, in the year 1874.

Articles.	CALIFORNIA.		OREGON.	IDAHO.	MONTANA.	NEW MEXICO.	WYOMING.	Average of Pacific States and Territories.	General average for the United States.
	San Francisco.	Oakland.	Portland.	Lewiston.	Helena.	Santa Fe.	Cheyenne		
	2 adults and 1 child.	2 adults and 3 children.	2 adults and 1 child.	2 adults and 3 children.	2 adults and 2 children.	2 adults and 2 children.	2 adults and 3 children.		
Flour and bread.....	\$0 42	\$1 00	\$0 50	\$0 37½	\$1 50	\$1 50	\$1 75	\$1 00	\$1 06
Meats, fresh, corned, salted, or smoked.....	3 50	3 00	1 25	1 00	1 50	1 75	2 00	1 97	1 76
Lard.....	50	.....	10	.....	25	50	1 00	47	33
Butter.....	1 50	1 00	75	1 00	1 00	50	80	93	75
Cheese.....	25	25	25	.....	25	25	.....	29	22
Sugar.....	1 00	75	1 00	50	50	1 25	1 00	86	70
Sugar and molasses.....	70	1 00	70	1 50	60	70	1 00	58	53
Milk.....	50	50	25	50	40	70	50	48	38
Coffee.....	25	25	25	.....	25	40	50	32	25
Tea.....	50	.....	35	.....	35	25	.....	35	33
Fish, fresh and salt.....	50	50	50	25	30	1 00	50	51	37
Soap, starch, salt, pepper, vinegar, &c.....	1 50	50	25	75	60	25	1 00	69	38
Eggs.....	2 00	50	50	50	75	1 00	1 00	80	60
Potatoes and other vegetables.....	50	50	.....	60	60	50	1 50	70	43
Fruits, green and dried.....	4 00	3 00	.....	3 50	75	2 00	2 00	2 35	1 14
Fuel.....	2 00	25	50	50	25	60	50	62	27
Oil or other light.....	3 00	.....	1 00	.....	75	1 00	1 00	2 19	79
Other articles.....	6 00	.....	4 00	50	75	50	1 00	1 15	56
Spirits, beer, and tobacco, (if any).....	10 00	7 50	1 00	3 00	4 50	2 00	3 50	4 93	2 92
House-rent.....	50	.....	4 00	75	1 00	2 00	2 00	1 90	76
Educational, religious, and benevolent objects.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total weekly expenses.....	30 12	50 50	13 35	15 72½	16 90	18 90	21 55	20 65	13 10
Total expenses 52 weeks.....	2, 034 24	1, 066 00	689 00	817 70	878 80	982 80	1, 130 60	1, 064 20	681 20
Clothing per year.....	150 00	300 00	100 00	200 00	300 00	200 00	300 00	221 43	132 82
Taxes per year.....	.....	.....	.....	.....	.....	.....	.....	Not port.	13 67
Total yearly expenses.....	2, 284 24	1, 366 00	795 00	1, 017 70	1, 178 80	1, 187 80	1, 430 60	1, 321 45	791 44
Weekly earnings.....	.....	.....	18 00	.....	35 00	25 00	.....	26 00	17 75
Yearly earnings, (52 weeks).....	.....	.....	936 00	.....	1, 820 00	1, 300 00	.....	1, 352 00	923 00

\* Estimated.

Although the foregoing statements indicate, with approximate accuracy, the total weekly expenditures of workmen's families, in the respective places named, yet, in regard to details, proper allowance should be made. It must be borne in mind that the number of laborers, mechanics, or factory hands who keep an accurate account of the amount expended for articles of subsistence is very limited; hence the difficulty in obtaining the desired information.

It will be noticed that those statements have been compiled by States and sections, irrespective of the size of the families. The income of the several workmen affords a fair index of the outgo, and a classification on that basis would have furnished data better suited for purposes of comparison; but, unfortunately, the weekly earnings were not, in all cases, stated in the returns. For example, the family in Maysville, Kentucky, consisting of eight persons, expended in the year but \$534.80, for the sufficient reason that the earnings, at \$11 per week for the whole year, amounted to only \$572; while another family of the same size in the same State was able to expend \$1,693.70, because the yearly income, at \$34 per week, reached \$1,768. It was the author's intention, however, only to include the expenditures of the families of workmen, skilled or unskilled, and not of foremen or superintendents, receiving from \$25 to \$38 per week.

#### VI. CONDITION OF THE WORKING CLASSES IN THE UNITED STATES.

The great advantages enjoyed by the workingmen in the United States, as compared with those of the same class in the Old World, are sufficiently attested by the deep and steady current of emigration which sets toward our shores. One of the most conspicuous of these advantages consists in the equality of political rights with which the workingman is here invested, and the comparatively high respect and dignity attached to his calling; but not less solid and decided are the advantages connected with abundant employment, good wages, and the substantial comforts of life. It is true that, in common with other countries where the system of credit has been largely developed, our country has had its occasional financial crises, accompanied with serious interruptions to the ordinary course of commerce and industry; but such effects have been comparatively transient in their duration, and the normal condition of the country has been marked by a degree of prosperity rarely if ever enjoyed elsewhere; and rarely, if ever, in the history of the world has national prosperity been so largely shared by those usually denominated the working classes.

In some of the larger cities of our eastern coast, where the labor-supply is receiving constant additions from the ranks of emigrants who lack the means of advancing farther into the country, there is at times considerable complaint of the want of adequate employment; and in such places there is occasionally some privation and suffering among the poor. In the city of New York, owing to its great extent and the lack of adequate communication between its commercial center and its suburbs, large numbers of working people, in order to be conveniently near to their places of employment, are compelled to live in crowded tenement-houses, under conditions which are favorable neither to health, comfort, nor decency.

In some of the manufacturing towns and villages of New England, particularly the seats of the textile industries, the dwellings of the poor are represented to be in a sanitary condition that is far from satisfactory. Such conditions are, however, quite exceptional, and the masses

of working people throughout the country occupy comfortable homes, enjoy an abundance of good food and comfortable clothing, with opportunities for a good common-school education for their children, and possess a degree of personal independence not enjoyed on a large scale by any other laboring population on the face of the globe.

This statement is true not only in regard to the workmen of the rich agricultural regions of our vast interior and the prosperous manufacturing towns with which those regions are dotted, but also to those of Philadelphia (not more famous for its industrial eminence than for the comfort of its workmen's homes) and most of the manufacturing towns of the New England and Middle States. Of these, Lynn, Worcester, Fitchburgh, Taunton, and Springfield, in Massachusetts; Providence and Pawtucket, in Rhode Island; Hartford, New Haven, Bridgeport, Waterbury, and New Britain, in Connecticut; Albany, Troy, Utica, and Rochester, in New York; and Newark, in New Jersey, with various smaller towns in their vicinities, are best known to the author of this report in the States mentioned; while in Ohio and Illinois nearly every town engaged in manufacturing industry may be included in the same category.

The prevailing comfort and independence of the great masses of mechanics and laborers of this country, taking one section with another, being sufficiently verified by general observation, it is deemed superfluous to enter into a detailed descriptive account of their condition and mode of life. With respect to the dwellings of factory operatives in the exceptional localities, it may, however, be said that, wherever their sanitary condition is seriously bad, it is believed to be the fault of manufacturing corporations which own the tenement-houses occupied by their employes, while operatives employed by individual manufacturers, who live among them and take an active and observant interest in their well-being, are far more comfortably situated. In a recent investigation, conducted by the Massachusetts bureau of statistics of labor, it was found that, out of 393 tenements examined in different towns in that State, 288, or upward of 73 per cent., were worthy of being reported "good," while 105, or less than 27 per cent., ranged from "fair" to "very bad." The animadversions on the poorer class of tenements contained in the reports of that bureau have attracted public attention to the subject, and there is a good prospect that, either through the action of the State legislature or by the force of public sentiment, abuses of this kind will soon be remedied.

The Massachusetts bureau of statistics of labor has made careful inquiry into the receipts, expenditures, and general condition of the families of four hundred workmen in that State, and published the results of the investigations. From the detailed statements which appear in the last report of that bureau the tables on the five succeeding pages have been prepared. The first table shows the yearly expenditures of one hundred and twenty-four families for rent, fuel, groceries, meat and fish, milk, wearing apparel, and "sundries," together with their expenditures for books and papers, and their contributions to religious and other societies. It also shows the earnings of the father, (no other member of these families being in receipt of wages,) the number of rooms occupied, number of persons in each family, and number of children attending school, with other information, indicating with sufficient clearness the condition of each family in respect to comfort, thrift, and aesthetic culture.

The second table contains the same information in regard to eighty-one families, and also shows the earnings of children who, in these families, assist the father in providing for the household.



Table showing the yearly expenditures, the earnings of the father and children respectively, and the condition of the families of eighty-one skilled workmen in the State of Massachusetts, in the year 1874.

Number.	Occupation of father.	Expenditures.										Total receipts.	Earnings of father.	Earnings of children.	Number of rooms occupied.	Number of persons in the family.	Number of children at school.	Rooms carpeted.	Has the family a sewing-machine?	Does the family attend church?
		Rent.	Fuel.	Groceries.	Meat and fish.	Milk.	Clothing.	Books & school.	Dry-goods.	Religion books, papers, and societies.	Sundries.	Total cost of living.								
7	Carpenter	\$192 00	\$71 00	\$357 11	\$131 39	\$34 62	\$211 80	\$49 75	\$3 75	\$27 00	\$65 33	\$1 150 00	\$1 200 00	\$650 00	9	6	2	All except kitchen.	Yes	Yes
8	do	130 00	50 00	300 50	111 73	16 20	139 00	36 00	36 00	30 00	37 57	877 00	1 083 00	785 00	300 00	5	3	Parlor and bedrooms.	Yes	Yes
10	do	200 00	50 00	356 00	136 64	33 26	134 94	30 50	30 50	30 00	29 05	981 00	1 016 00	716 00	300 00	6	6	Parlor	Yes	Yes
11	do	108 00	52 00	361 76	119 05	33 70	111 33	31 00	31 00	26 00	17 14	980 00	990 00	620 00	300 00	6	3	All	Yes	Yes
14	do	126 00	50 00	319 67	132 10	21 60	103 50	37 00	37 00	30 48	22 60	842 04	917 00	660 00	327 00	5	2	Parlor and bedrooms.	Yes	Yes
16	do	150 00	61 75	312 42	107 85	18 40	121 93	37 75	37 75	30 50	76 38	917 00	1 015 00	695 00	320 00	5	3	All except kitchen	Yes	Yes
28	do	200 00	43 30	319 80	109 66	27 40	107 20	29 42	29 42	22 00	64 62	923 00	984 00	704 00	380 00	5	2	Parlor	Yes	Yes
31	do	144 00	36 80	298 76	114 50	28 34	99 50	30 16	30 16	16 00	18 40	800 75	840 00	580 00	360 00	4	1	All except kitchen	Yes	Yes
32	do	200 00	60 00	381 67	118 17	36 40	99 50	30 16	30 16	16 00	18 40	800 75	840 00	580 00	360 00	4	1	Parlor	Yes	Yes
36	do	156 00	40 75	363 49	116 49	15 64	71 75	27 00	27 00	5 75	19 13	857 00	857 00	619 00	320 00	5	3	All	Yes	Yes
37	do	168 00	45 00	401 60	85 75	30 90	183 00	24 00	24 00	17 00	32 75	867 18	913 00	516 00	307 00	6	3	Parlor	Yes	Yes
42	do	225 00	61 00	423 80	132 12	28 76	118 50	34 00	34 00	17 00	32 75	867 18	913 00	516 00	307 00	6	3	Parlor & 2 chambers	Yes	Yes
46	Mason	200 00	50 00	428 60	133 97	28 76	133 50	32 00	32 00	26 00	69 32	1 130 00	1 336 00	665 00	664 00	6	7	All	Yes	Yes
53	Painter	168 00	43 00	230 16	80 04	18 40	58 50	38 80	37 00	31 40	663 30	750 00	750 00	660 00	90 00	4	3	Parlor	Yes	Yes
55	Plasterer	200 00	48 00	360 83	114 46	14 60	119 00	24 00	24 00	14 00	14 11	663 30	750 00	660 00	90 00	4	3	All	Yes	Yes
60	Boat-maker	150 00	40 00	302 78	99 50	27 60	77 70	15 00	15 00	26 00	22 00	760 08	988 00	728 00	260 00	3	3	One room	Yes	Yes
64	Morocco-dresser	144 00	38 00	296 90	72 75	14 70	43 90	12 00	12 00	9 00	23 00	644 46	700 00	520 00	180 00	4	5	Parlor	Yes	Yes
67	Shoe-cutter	200 00	51 00	302 00	97 91	23 74	92 87	28 00	28 00	7 00	43 00	808 00	985 00	482 00	513 00	6	2	Parlor	Yes	Yes
69	do	150 00	42 75	337 85	93 91	23 74	64 25	19 60	19 60	12 30	28 31	848 00	839 00	396 00	462 00	6	3	All	Yes	Yes
72	Shoe-trimmer	120 00	42 75	337 85	93 91	23 74	64 25	19 60	19 60	12 30	28 31	848 00	839 00	396 00	462 00	6	3	Parlor	Yes	Yes
73	Shoe-maker	144 00	43 80	311 12	62 92	17 40	58 50	30 00	30 00	16 00	16 40	718 00	718 00	481 00	227 00	5	4	Parlor	Yes	Yes
75	do	102 00	40 50	292 21	100 91	13 78	53 50	25 00	25 00	16 00	16 40	718 00	718 00	481 00	227 00	5	4	Parlor	Yes	Yes
77	do	200 00	48 50	364 90	70 75	15 00	65 00	18 00	18 00	36 00	27 00	822 15	890 00	480 00	410 00	6	3	Parlor	Yes	Yes
79	do	225 00	58 00	390 84	72 63	98 00	118 00	28 00	28 00	36 00	27 00	822 15	890 00	480 00	410 00	6	3	Parlor and bedrooms	Yes	Yes
81	do	120 00	53 00	340 47	91 60	13 00	63 00	18 00	18 00	18 00	21 00	735 74	740 00	600 00	190 00	4	1	Parlor	Yes	Yes
82	do	123 00	51 00	331 07	92 06	12 50	63 00	18 00	18 00	30 00	21 77	700 00	736 00	540 00	200 00	4	1	Parlor	Yes	Yes
83	do	120 00	49 00	276 33	110 02	17 00	103 00	27 50	27 50	30 00	21 77	700 00	736 00	540 00	200 00	4	1	Parlor	Yes	Yes
86	do	200 00	50 00	433 21	118 64	40 10	101 50	41 60	41 60	33 00	36 00	1 060 45	1 060 00	561 00	505 00	5	3	Parlor	Yes	Yes
88	do	152 00	47 00	369 90	96 00	13 03	58 00	31 00	31 00	16 00	31 36	717 00	717 00	490 00	321 00	5	3	Parlor	Yes	Yes
90	do	132 00	51 00	290 54	91 79	13 42	64 00	34 00	34 00	45 00	30 25	974 28	1 004 00	543 00	403 00	6	3	Parlor	Yes	Yes
91	do	132 00	53 00	420 37	131 40	36 90	94 00	31 50	31 50	45 75	19 30	718 00	1 004 00	543 00	403 00	6	3	Parlor	Yes	Yes
93	do	216 00	54 50	428 80	116 90	28 00	102 00	42 00	42 00	9 00	38 00	1 053 90	1 176 00	540 00	450 00	6	3	Parlor and bedrooms	Yes	Yes
94	do	144 00	41 75	360 21	90 42	14 25	65 00	28 80	28 80	8 00	40 50	703 00	703 00	450 00	300 00	4	3	Parlor	Yes	Yes
96	Tanner	166 00	39 00	299 13	104 51	12 46	54 00	25 00	25 00	14 00	23 36	650 00	650 00	457 00	160 00	4	3	Parlor	Yes	Yes
102	Cutler	106 00	56 70	268 40	136 00	31 90	137 50	36 50	36 50	14 00	23 36	650 00	650 00	457 00	160 00	4	3	Parlor	Yes	Yes

Iron-molder.....	192	49	70	339	62	110	75	26	50	151	25	29	75	31	00	38	43	940	00	949	00	695	00	354	00	6	5	1	Parlor.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
do.....	200	51	50	368	54	97	90	42	30	138	60	65	50	33	00	62	93	1,070	00	1,370	00	712	00	558	00	6	5	1	Parlor.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Iron-roller.....	130	47	73	393	60	88	96	18	55	140	60	33	00	37	00	68	22	1,350	00	1,350	00	980	00	400	00	6	5	1	All except kitchen.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Machine.....	108	40	50	365	57	109	41	24	44	92	70	23	00	30	00	81	00	1,052	00	1,052	00	668	00	304	00	5	5	2	All.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
do.....	132	42	49	366	70	86	90	31	60	185	73	19	00	41	00	90	00	889	22	982	00	662	00	290	00	5	5	2	Parlor.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
do.....	131	43	50	371	70	122	53	30	60	113	00	24	00	48	00	91	00	910	00	910	00	690	00	320	00	6	6	3	Parlor and bedrooms.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
do.....	144	54	40	366	70	113	80	28	60	113	00	24	00	58	00	91	00	910	00	910	00	690	00	320	00	6	6	3	Parlor.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
do.....	132	42	49	366	70	86	90	31	60	185	73	19	00	41	00	90	00	910	00	910	00	690	00	320	00	6	6	3	All.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
do.....	225	60	41	50	347	90	113	34	18	60	115	00	26	50	31	00	48	90	923	00	973	00	772	00	900	00	6	6	3	Parlor.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
do.....	150	55	55	371	62	113	80	28	60	115	00	26	50	31	00	48	90	923	00	973	00	772	00	900	00	6	6	3	Parlor.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
do.....	144	54	40	366	70	113	80	28	60	115	00	26	50	31	00	48	90	923	00	973	00	772	00	900	00	6	6	3	Parlor.....	Yes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
do.....	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	

REMARKS.—House and surroundings of all are reported "pleasant," except Nos. 53, 61, 66, 106, and 189, which are "unpleasant;" 55, 149, 188, 190, and 223, which are "fair," 175 and 201, which are "poor," and 123, which is "unpleasant and poor." Houses are all reported "well furnished," except Nos. 64, 69, 96, 177, 194, 201, and 206, which are "moderately well;" and 192, which is "fairly furnished." Nos. 7, 8, 10, 14, 31, 50, 74, 79, 83, 123, 131, 146, and 253 have piano-fortes, and 136, 147, and 189 have organs. All are reported "well dressed," except No. 64, which is "poorly," 177 "passably well," and 209 "moderately well." Nos. 7, 16, 37, 46, 67, 72, 93, 129, 136, 178, 179, 182, 190, 197, and 203 have money deposited in savings banks; and Nos. 136 and 147 have footed insurance on their lives. No. 149 has a fine library.

# LABOR IN EUROPE AND AMERICA.

Number.	Occupation of father.	Expenses.										Total cost of liv- ing.	Total earnings (of father only.)	No. of rooms occu- pied.	No. of persons in the family.	No. of children at school.	Rooms carpeted.	Musical instru- ments	Has the family a sewing-machine?	Does the family attend church?
		Rent.	Fuel.	Groceries.	Meat and fish.	Milk.	Clothing, boots & shoes.	Dry-goods.	Religion, pa- pers, books, and socie- ties.	Sundries.										
1	Brick-layer.....	\$204 00	\$40 60	\$320 49	\$90 82	\$1 21	\$72 30	\$24 00	\$18 00	\$12 59	\$210 00	\$210 00	\$810 00	4	5	1	Parlor	Piano	Yes	.....
2	do.....	156 00	37 50	364 21	76 21	18 90	66 50	18 30	21 06	25 48	700 00	760 00	760 00	4	4	1	All	.....	Yes	.....
3	Carpenter.....	100 00	43 80	208 19	109 14	25 40	111 00	24 00	18 00	40 00	635 53	635 53	748 00	4	4	1	Parlor	.....	Yes	.....
4	do.....	144 00	46 00	300 21	99 67	14 22	59 00	32 00	19 00	32 90	746 00	760 00	760 00	5	5	2	Parlor	.....	Yes	.....
5	do.....	132 00	37 00	346 22	99 50	17 90	76 30	19 84	18 00	13 34	706 00	738 00	738 00	5	4	1	Parlor	.....	Yes	.....
6	do.....	196 00	49 00	339 00	82 00	17 00	68 00	16 00	11 00	28 00	738 00	738 00	738 00	5	4	1	Parlor	.....	Yes	.....
9	do.....	144 00	39 00	312 87	94 36	12 60	75 37	24 00	14 00	21 80	738 00	738 00	738 00	5	4	1	Parlor	.....	Yes	.....
12	do.....	120 00	46 00	263 79	87 34	15 44	83 50	19 00	17 00	36 00	697 47	722 00	680 00	5	3	1	Parlor	.....	Yes	.....
13	do.....	144 00	39 75	270 30	71 60	14 30	83 50	17 00	16 00	31 55	680 00	725 00	725 00	4	4	1	Parlor	.....	Yes	.....
15	do.....	120 00	41 25	291 39	89 40	14 28	79 10	29 00	34 00	21 34	720 00	720 00	720 00	4	4	2	Parlor	Organ	Yes	.....
17	do.....	175 00	47 00	248 00	82 01	12 40	86 75	16 00	30 00	21 34	651 00	676 00	676 00	4	4	1	Parlor	Piano	Yes	.....
18	do.....	120 00	39 00	253 89	85 20	18 46	58 00	16 00	35 00	37 45	683 00	715 00	715 00	6	3	1	All	.....	Yes	.....
19	do.....	132 00	43 00	239 74	87 90	14 26	75 00	17 00	35 00	39 10	679 33	686 00	686 00	5	3	1	All	.....	Yes	.....
20	do.....	144 00	40 00	269 06	98 45	16 30	72 00	16 50	14 00	12 50	720 31	744 00	744 00	5	4	2	All	.....	Yes	.....
21	do.....	100 00	38 50	241 89	90 20	15 60	69 00	16 50	14 00	12 50	679 33	686 00	686 00	5	3	1	All	Piano	Yes	.....
22	do.....	144 00	61 75	146 80	78 40	12 40	91 50	24 75	31 00	32 00	701 39	746 00	746 00	5	4	1	All	.....	Yes	.....
23	do.....	144 00	58 40	229 73	85 96	15 40	86 80	19 00	21 00	32 00	745 75	745 75	745 75	5	4	1	All	.....	Yes	.....
24	do.....	144 00	37 00	277 00	83 95	17 60	111 90	17 00	22 25	35 75	661 00	672 00	672 00	4	4	1	All	.....	Yes	.....
25	do.....	96 00	43 75	265 40	91 33	12 80	61 50	13 00	33 00	43 82	661 00	672 00	672 00	4	4	1	All	.....	Yes	.....
26	do.....	180 00	37 60	269 37	93 23	23 96	80 00	15 80	14 00	72 40	725 00	725 00	725 00	4	4	2	Parlor	.....	Yes	.....
29	do.....	120 00	40 75	249 15	106 30	16 40	113 00	33 50	20 50	9 81	630 00	630 00	630 00	5	4	2	Parlor	.....	Yes	.....
30	do.....	144 00	40 00	243 67	96 92	14 40	57 00	15 00	20 00	28 00	780 00	780 00	780 00	6	5	2	All	Piano	Yes	.....
33	do.....	132 00	39 00	307 18	93 60	12 64	79 00	19 75	17 00	17 83	717 00	723 00	723 00	4	5	2	All	.....	Yes	.....
34	do.....	300 00	43 00	207 30	93 80	16 10	60 00	18 50	19 00	13 62	780 00	780 00	780 00	5	4	3	Parlor	All	Yes	.....
38	do.....	168 00	40 00	313 81	106 40	14 67	70 00	23 00	18 00	39 83	634 00	634 00	634 00	5	4	3	Parlor	.....	Yes	.....
39	do.....	132 00	36 00	297 24	85 43	14 30	70 00	23 00	13 00	40 50	607 00	607 00	607 00	5	4	1	Parlor	.....	Yes	.....
40	do.....	132 00	40 50	260 68	85 00	17 00	65 00	24 50	16 00	25 00	637 48	644 00	644 00	4	4	1	Parlor	.....	Yes	.....
43	do.....	120 00	40 75	246 23	83 00	10 75	43 25	15 00	4 00	28 00	637 48	644 00	644 00	4	4	1	Parlor	.....	Yes	.....
45	do.....	96 00	48 50	352 40	85 31	26 50	70 80	25 00	6 00	19 64	607 00	607 00	607 00	4	4	2	All	.....	Yes	.....
47	do.....	168 00	39 75	352 40	85 31	26 50	70 80	25 00	6 00	19 64	704 00	704 00	704 00	4	6	2	All	Piano	Yes	.....
48	Mason.....	102 00	46 00	329 00	78 03	20 30	80 00	20 50	34 50	30 40	835 54	860 00	860 00	5	5	2	All	Organ	Yes	.....
49	do.....	250 00	51 50	206 24	78 03	20 30	80 00	20 50	34 50	30 40	835 54	860 00	860 00	5	5	2	All	.....	Yes	.....
51	do.....	140 00	51 50	336 04	105 31	14 26	91 50	18 00	23 00	13 20	608 00	608 00	608 00	5	4	1	Parlor	.....	Yes	.....
52	Painter.....	175 00	53 50	267 30	81 35	14 26	91 50	18 00	23 00	10 65	770 00	770 00	770 00	5	4	1	All	.....	Yes	.....
53	Plus occr.....	180 00	53 50	267 30	81 35	14 26	91 50	18 00	23 00	10 65	770 00	770 00	770 00	5	4	1	All	Piano	Yes	.....
54	Ship-carporter.....	180 00	53 50	267 30	81 35	14 26	91 50	18 00	23 00	10 65	770 00	770 00	770 00	5	4	1	All	.....	Yes	.....

57	Stair-builder	168	00	44	50	249	95	91	35	38	25	57	50	16	00	17	00	45	850	00	850	00	3	All	Parlor				
58	Boot-maker	190	00	49	75	319	89	81	25	19	80	61	50	16	00	16	00	14	70	621	00	621	00	3	Parlor				
59	do.	96	00	43	75	283	50	81	25	19	80	61	50	16	00	16	00	28	48	632	00	632	00	4	3	Parlor			
60	do.	100	00	40	00	261	42	61	32	19	30	64	83	17	38	17	38	23	04	673	50	694	00	4	4	1	All		
61	Carrier	120	00	42	60	278	91	79	12	14	40	82	90	16	00	16	00	58	25	632	00	632	00	5	3	4	1	All	
62	Shoe-channeller	300	00	39	60	216	54	69	12	13	50	40	75	16	00	16	00	23	83	676	00	676	00	3	All	Parlor			
63	Shoe-cutter	100	00	41	75	196	60	62	75	13	50	50	50	32	00	32	00	16	28	648	00	648	00	3	All	Parlor			
64	Shoe-laster	144	00	31	60	108	90	75	95	13	50	50	50	32	00	32	00	23	83	676	00	676	00	3	All	Parlor			
65	Shoe-trimmer	200	00	43	80	199	90	75	95	13	50	50	50	32	00	32	00	23	83	676	00	676	00	3	All	Parlor			
66	do.	100	00	45	00	309	71	70	78	13	50	50	50	32	00	32	00	23	83	676	00	676	00	3	All	Parlor			
67	Shoemaker	100	00	47	85	286	69	108	78	13	50	50	50	32	00	32	00	23	83	676	00	676	00	3	All	Parlor			
68	do.	200	00	36	50	260	00	52	00	18	00	44	50	30	00	30	00	23	60	719	00	725	00	4	2	4	1	One room.	
69	do.	72	00	47	00	249	75	69	86	26	40	106	30	21	00	21	00	16	00	611	00	611	00	4	1	All	Parlor		
70	do.	96	00	43	00	183	04	86	21	13	60	66	50	15	00	15	00	46	65	620	00	620	00	4	3	2	Parlor		
71	do.	100	00	43	75	264	39	88	40	13	50	51	45	22	00	22	00	10	30	620	00	620	00	4	4	3	2	Parlor	
72	do.	96	00	43	75	264	39	88	40	13	50	51	45	22	00	22	00	30	50	483	40	483	40	3	5	2	2	Parlor	
73	do.	96	00	43	75	264	39	88	40	13	50	51	45	22	00	22	00	30	50	483	40	483	40	3	5	2	2	Parlor	
74	Blacksmith	150	00	44	50	312	90	91	60	14	75	73	75	33	00	33	00	38	48	708	00	710	00	4	4	5	2	All	
75	do.	132	00	39	75	273	94	95	43	14	90	109	45	13	00	13	00	21	00	708	00	710	00	4	4	5	2	All	
76	Boiler-maker	168	00	36	75	236	40	69	35	17	50	101	00	19	00	19	00	21	00	708	00	710	00	4	4	5	2	All	
77	Cutter	72	00	39	40	199	23	89	60	18	75	94	50	29	70	6	00	9	00	49	65	598	40	4	4	4	1	All	
78	do.	84	00	47	50	219	89	92	30	23	86	90	50	15	00	15	00	31	95	614	00	614	00	4	4	4	1	All	
79	do.	78	00	34	50	251	01	109	73	14	16	73	40	19	00	19	00	16	00	25	12	620	00	5	5	5	2	All	
80	Engin-builder	168	00	36	50	261	95	89	70	18	24	112	32	22	00	22	00	18	00	44	20	775	00	5	5	5	2	All	
81	Iron-moulder	120	00	40	80	258	62	122	25	24	60	85	00	21	90	22	00	19	00	62	70	747	60	4	4	4	1	All	
82	Iron-roller	180	00	39	80	291	70	106	42	20	82	40	82	40	21	90	22	00	31	51	790	00	790	00	5	5	5	2	All
83	do.	180	00	40	80	306	87	106	42	21	90	82	40	21	90	22	00	31	50	800	00	800	00	6	4	4	1	Parlor	
84	do.	180	00	46	50	306	87	106	42	21	90	82	40	21	90	22	00	31	50	800	00	800	00	6	4	4	1	Parlor	
85	Iron-worker	120	00	46	50	306	87	106	42	21	90	82	40	21	90	22	00	31	50	800	00	800	00	6	4	4	1	Parlor	
86	Jeweler	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
87	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
88	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
89	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
90	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
91	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
92	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
93	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
94	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
95	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
96	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
97	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
98	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
99	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
100	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
101	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
102	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
103	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
104	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
105	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
106	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
107	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
108	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
109	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
110	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
111	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
112	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
113	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
114	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
115	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
116	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00	5	5	5	2	All	
117	do.	152	00	61	00	366	47	130	21	16	80	77	60	20	00	20	00	33	12	800	00	800	00						

Table showing the yearly expenditures, the earnings of the father, and the condition of the families, of 124 skilled workmen, &amp;c.—Continued.

Number.	Occupation of father.	Expenses.							Total cost of liv- ing.	Total earnings (of father only.)	No. of rooms occu- pied.	No. of persons in the family.	No. of children at school.	Rooms carpeted.	Musical instrum'ts.	Has the family a sewing-machine?	Does the family attend church?
		Rent.	Fuel.	Groceries.	Meat and fish.	Milk.	Clothing, boots & shoes.	Dry-goods.	Religion, pa- pers, books.	Tea, socie- ties.	Sundries.						
143	Machineist.	\$180 00	\$41 75	\$296 76	\$90 25	\$36 84	\$123 72	\$22 00	\$26 00	\$36 00	\$49 00	\$736 32	\$570 00	All	Piano	Yes	Yes
144	do	132 00	111 22	229 80	100 60	28 62	75 03	37 50	23 00	55 35	728 96	748 00	4	1	Yes	Yes	Yes
145	do	186 00	41 00	253 50	100 60	16 20	91 00	18 50	3 00	24 11	643 91	688 00	4	2	Yes	Yes	Yes
150	do	150 00	47 50	242 23	84 41	14 20	77 60	17 25	38 00	21 41	737 00	748 00	4	3	Yes	Yes	Yes
151	do	72 00	48 00	327 37	92 35	13 20	59 00	23 00	17 00	30 00	677 00	677 00	4	1	Yes	Yes	Yes
152	do	168 00	43 00	301 30	91 40	15 00	108 75	24 00	13 00	31 55	800 00	800 00	4	2	Yes	Yes	Yes
155	do	925 00	41 80	930 37	95 75	92 60	78 00	16 50	23 00	33 00	816 00	820 00	4	1	Yes	Yes	Yes
157	Watchmaker.	132 00	40 00	276 85	99 44	15 64	84 80	25 00	20 75	15 92	726 00	729 00	4	2	Yes	Yes	Yes
176	Dresser in mill.	132 00	46 00	264 70	83 53	19 86	85 45	21 50	38 50	39 43	744 00	714 00	4	1	Yes	Yes	Yes
180	Second hand in mill.	96 00	42 00	260 60	83 53	10 62	66 00	20 00	98 00	14 00	627 00	628 00	4	1	Yes	Yes	Yes
187	do	84 00	39 70	229 72	67 42	58 82	72 90	22 00	14 00	46 27	623 00	628 00	4	1	Yes	Yes	Yes
207	Weaver.	40 00	32 50	138 52	69 95	17 70	63 15	16 00	3 00	55 05	508 00	508 00	4	4	Yes	Yes	Yes
223	Overseer in mill.	150 00	46 00	330 60	114 70	37 00	119 50	22 00	41 00	60 00	823 00	840 00	4	9	Yes	Yes	Yes
235	do	144 00	38 50	304 60	101 60	31 22	136 50	29 80	22 00	57 58	874 00	1000 00	4	2	Yes	Yes	Yes
264	Cabinet-maker.	130 00	46 50	253 73	103 02	36 80	137 20	21 00	46 00	32 00	836 87	1000 00	4	2	Yes	Yes	Yes
302	Carriage-maker.	144 00	41 75	346 90	106 30	33 60	137 20	21 00	34 00	33 00	820 82	890 00	4	2	Yes	Yes	Yes
366	Carriage-trimmer.	144 00	54 50	354 00	106 30	33 60	137 20	21 00	34 00	33 00	820 82	890 00	4	2	Yes	Yes	Yes
367	do	144 00	47 75	339 75	104 20	37 40	104 00	29 60	31 50	30 35	887 25	887 25	4	1	Yes	Yes	Yes
368	Cigar-maker.	144 00	51 00	324 50	97 50	18 48	150 00	10 00	16 00	48 00	856 70	872 32	6	3	Yes	Yes	Yes
371	Furniture-maker.	100 00	49 75	328 05	102 20	19 30	130 25	29 00	33 00	32 45	714 00	828 00	4	3	Yes	Yes	Yes
372	Hatter.	144 00	48 00	322 36	69 21	15 60	73 00	19 50	30 00	47 33	760 00	740 00	4	2	Yes	Yes	Yes
374	do.	120 00	48 00	319 62	95 68	22 60	67 50	17 00	23 00	41 80	725 00	740 00	4	2	Yes	Yes	Yes
375	Mechanic.	132 00	51 00	327 90	92 25	13 60	77 00	13 00	23 00	39 00	777 75	810 00	5	2	Yes	Yes	Yes
376	do.	130 00	46 55	304 18	102 38	14 36	58 37	17 00	11 50	14 68	686 00	686 00	5	2	Yes	Yes	Yes
377	do.	180 00	42 00	327 12	107 09	13 23	118 75	36 00	28 00	59 82	762 00	762 00	4	2	Yes	Yes	Yes
378	do.	150 00	49 50	368 76	117 24	11 18	99 50	27 37	23 00	50 80	852 55	840 00	5	2	Yes	Yes	Yes
380	do.	168 00	57 50	342 61	104 44	87 30	68 25	21 50	28 50	14 80	833 40	835 00	4	1	Yes	Yes	Yes
382	Stone-cutter.	132 00	51 00	357 39	110 94	32 40	78 00	19 00	50 00	23 60	823 83	860 00	5	3	Yes	Yes	Yes
383	do.	144 00	40 00	350 36	112 00	16 34	67 50	16 48	10 00	13 40	800 04	839 00	6	4	Yes	Yes	Yes
384	do.	128 00	47 60	381 04	110 36	10 20	80 00	22 68	10 00	19 90	890 00	898 00	5	2	Yes	Yes	Yes
385	Whip-maker.	144 00	38 75	270 96	90 88	11 54	123 25	24 00	25 00	81 34	672 00	765 00	4	1	Yes	Yes	Yes
386	do.	144 00	38 75	270 96	90 88	11 54	123 25	24 00	25 00	81 34	672 00	765 00	4	1	Yes	Yes	Yes
	Average	138 47	44 84	275 51	92 33	18 63	83 50	32 39	21 95	32 06	730 60	740 15	5	4			

REMARKS.—No. 41 has a life-insurance of \$1,000, No. 360, \$2,000, and No. 170 an insurance policy. No. 56 owns house. Nos. 57, 60, 83, 111, 128, 143, 187, 235, and 367 have money in savings-banks. Nos. 65 and 253 save money. No. 71 works only 8 months, No. 80 only 54, and No. 85 only 9. Nos. 182, 135, and 144 have good libraries. House and surroundings of all are reported "pleasant," except Nos. 2, 47, 69, and 83, which are "poor," No. 92, "very poor," and Nos. 46, 54, 102, 253, and 374 "fair." Houses are all reported "well furnished," except Nos. 4, 104, and 145, which are "moderately well," and 307 "fairly." All are reported "well dressed," except No. 2, which is "moderately well," and 99 "miserably dressed."

## LABOR IN THE BRITISH NORTH AMERICAN POSSESSIONS.

In the British North American provinces, which now constitute the Dominion of Canada, manufacturing industry has not until recently been developed to any considerable extent, and is even now chiefly confined to Ontario and Quebec. Since the termination of the Treaty of Reciprocity with the United States there has been a marked increase in the extent of manufactures, not only in Canada proper, but in the maritime provinces.

The following statement, condensed from the report of the Canadian census of 1870-'71, shows the capital invested, the number of hands employed, and the total value of the products of the leading industries of the provinces then composing the Dominion of Canada :

Industries.	Capital invested.	Number of hands employed.	Total value of products.
Agricultural implements .....	\$1,104,308	2,546	\$2,685,303
Bakeries of all sorts .....	1,054,531	2,604	6,942,469
Blacksmithing .....	1,720,632	10,213	5,364,411
Boots and shoes .....	3,246,633	18,719	16,133,638
Breweries .....	1,666,140	918	2,141,229
Cabinet and furniture .....	2,050,175	4,366	3,580,978
Carding and fulling mills .....	752,962	1,224	2,253,794
Carpenters and joiners .....	779,667	5,408	3,726,345
Carriage-making .....	1,859,609	7,798	4,849,234
Cooperage .....	450,514	3,442	1,772,663
Distilleries .....	737,200	467	4,092,537
Dress-making and millinery .....	504,868	3,877	2,585,679
Edge-tool manufactories .....	177,918	376	418,775
Flour and grist mills .....	9,929,698	4,992	39,135,919
Furriers and hatters, &c .....	1,159,038	1,861	2,875,060
Glass-works .....	136,120	318	293,130
India-rubber factories .....	454,600	494	502,615
Iron founding and machine-making .....	3,760,503	7,653	7,325,531
Engine building .....	709,900	1,007	1,014,525
Iron-rolling mills .....	440,000	762	1,620,000
Iron-smelting and steel-making .....	492,000	624	298,000
Meat-curing .....	419,325	841	3,799,552
Nail and tack factories .....	382,050	590	1,147,380
Oil-refineries .....	64,941	494	3,094,669
Paper-manufactories .....	610,460	760	1,071,651
Printing-offices .....	2,158,040	3,497	3,420,292
Railway-car factories .....	108,000	175	512,000
Rope and twine making .....	210,660	450	769,840
Saddle and harness making .....	631,866	2,667	2,463,321
Sash, door, and blind factories .....	967,294	2,519	3,008,641
Saw-mills .....	16,040,589	35,691	30,256,247
Sewing-machine factories .....	346,400	966	1,123,464
Ship-yards .....	1,084,425	6,046	4,432,262
Soap and candle making .....	279,621	301	1,323,853
Spring and axle factories .....	89,850	163	238,818
Stone and marble establishments .....	200,704	1,169	1,072,874
Sugar refineries .....	425,000	359	4,132,750
Tailors and clothiers .....	1,721,903	11,092	9,345,875
Tanneries .....	2,656,166	4,207	9,184,932
Tin and sheet-iron working .....	789,216	2,351	2,392,638
Tobacco working .....	573,145	2,216	2,435,343
Wool-cloth making .....	2,776,814	4,453	5,507,549
<b>Total of above and all other industries .....</b>	<b>77,964,020</b>	<b>187,942</b>	<b>221,617,773</b>
<b>PERCAPITULATION BY PROVINCES.</b>			
Ontario .....	37,874,010	87,281	114,706,799
Quebec .....	2,071,468	66,714	77,205,182
New Brunswick .....	5,976,176	18,352	17,367,687
Nova Scotia .....	6,041,966	15,595	12,328,105
<b>Total .....</b>	<b>77,964,020</b>	<b>187,942</b>	<b>221,617,773</b>

## RATES OF WAGES.

The tables on the succeeding pages, though not so full as desired, exhibit with approximate accuracy the average rates of wages for mechanical, factory, and farm labor in various portions of the British North American possessions.

## I.—MECHANICAL LABOR.

Tables showing the average daily wages paid to persons employed in the undermentioned trades in different counties and towns in the provinces of Ontario, Quebec, Nova Scotia, New Brunswick, and Prince Edward's Island; also, in Newfoundland, and in Jamaica, West Indies, in the years 1873 and 1874.

Provinces and towns.	1874	Blacksmiths.		Bricklayers or masons.		Cabinet-makers.		Carpenters.		Coopers.		Machinists.		Painters.		Plasterers.	
		With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.
Ontario:																	
Bellefleur.....	1874	\$1 75	\$2 50	\$2 50	\$2 50	\$1 25	\$1 75	\$1 25	\$1 75	\$1 25	\$1 75	\$2 00	\$2 50	\$1 75	\$2 50	\$2 00	\$2 00
Carleton.....	1873	\$1 50	2 00	2 50	2 50	1 25	1 75	1 50	1 75	1 50	1 75	2 00	2 50	1 75	2 50	3 00	3 00
Dundas.....	1873	1 00	1 50	1 50	2 00	1 25	1 50	1 50	1 75	1 50	1 75	2 00	2 50	1 75	2 50	2 00	2 00
Durham.....	1873	2 62	3 00	3 00	3 00	2 75	2 75	2 75	2 75	2 75	2 75	2 00	2 50	2 12	2 12	2 50	2 50
Elgin.....	1873	1 50	2 00	2 00	2 50	1 50	2 00	1 50	2 00	1 25	1 75	2 00	2 50	2 00	2 00	1 75	1 75
Frontenac.....	1874	2 00	2 00	3 00	3 00	1 50	1 50	1 50	1 50	1 25	1 50	2 00	2 50	1 50	2 00	3 00	3 00
Greenville.....	1873	1 25	1 75	2 25	2 75	1 25	1 75	1 25	1 75	1 25	1 75	1 50	2 00	1 50	2 50	2 50	2 50
Hamilton.....	1873	2 00	2 00	2 37	2 75	1 75	1 75	1 65	1 65	1 75	1 75	2 00	2 50	1 60	2 00	2 50	2 50
Hastings.....	1874	1 87	2 00	2 00	2 00	1 50	1 50	1 50	1 50	1 50	1 50	2 00	2 50	1 50	2 00	3 00	3 00
Huron.....	1874	1 60	2 50	2 50	2 50	1 75	1 75	1 75	1 75	1 50	1 50	2 00	2 50	1 50	2 00	2 50	2 50
Kent.....	1873	1 75	2 50	2 50	2 50	1 25	1 25	2 00	2 00	1 50	1 50	1 75	2 50	1 87	2 50	2 50	2 50
Leeds.....	1873	1 50	2 00	2 00	2 00	1 75	1 75	2 00	2 00	1 50	1 50	1 75	2 50	1 75	2 50	2 50	2 50
Lincoln.....	1873	2 00	2 50	2 50	2 50	1 50	1 50	1 50	1 50	1 50	1 50	2 00	2 50	2 00	2 50	2 50	2 50
Northumberland.....	1873	2 00	2 50	2 50	2 50	1 50	1 50	1 50	1 50	1 50	1 50	2 00	2 50	2 00	2 50	2 50	2 50
Orillia.....	1873	2 75	2 75	2 75	2 75	2 12	2 12	2 12	2 12	2 00	2 00	2 50	3 00	2 00	2 50	2 50	2 50
Port Hope.....	1873	2 00	2 00	2 00	2 00	1 25	1 25	2 00	2 00	1 25	1 25	2 00	2 50	2 00	2 50	2 50	2 50
Pt. Hope, Prince Edward Co.....	1873	1 50	2 00	2 00	2 00	1 50	1 50	2 00	2 00	1 50	1 50	2 00	2 50	2 00	2 50	2 50	2 50
Pt. Hope, Prince Edward Co.....	1873	2 00	2 00	2 00	2 00	1 50	1 50	2 00	2 00	1 50	1 50	2 00	2 50	2 00	2 50	2 50	2 50
St. Catharines.....	1873	2 00	2 00	2 00	2 00	1 50	1 50	2 00	2 00	1 50	1 50	2 00	2 50	2 00	2 50	2 50	2 50
St. Catharines.....	1874	1 50	2 00	2 00	2 00	1 50	1 50	2 00	2 00	1 50	1 50	2 00	2 50	2 00	2 50	2 50	2 50
Stormont.....	1874	1 50	2 00	2 00	2 00	1 25	1 50	1 00	1 25	1 00	1 25	1 75	2 00	1 00	1 50	1 50	1 50
Quebec:																	
Bathurst.....	1873	1 50	2 00	2 00	2 00	1 25	1 50	1 00	1 25	1 00	1 25	1 75	2 00	1 00	1 50	1 50	1 50
Quebec.....	1873	1 50	2 00	2 00	2 00	1 25	1 50	1 00	1 25	1 00	1 25	1 75	2 00	1 00	1 50	1 50	1 50
Quebec.....	1873	2 00	2 00	2 00	2 00	1 25	1 50	1 00	1 25	1 00	1 25	1 75	2 00	1 00	1 50	1 50	1 50
Three Rivers.....	1873	2 00	2 00	2 00	2 00	1 25	1 50	1 00	1 25	1 00	1 25	1 75	2 00	1 00	1 50	1 50	1 50
New Brunswick:																	
Halifax.....	1874	1 75	2 50	2 50	2 50	1 75	1 75	1 75	1 75	1 75	1 75	2 00	2 50	1 75	2 50	2 50	2 50
Pictou.....	1872	1 50	2 00	2 00	2 00	1 50	1 50	1 50	1 50	1 50	1 50	2 00	2 50	1 50	2 00	2 00	2 00
Windsor.....	1873	2 12	2 12	2 12	2 12	2 00	2 00	2 00	2 00	2 00	2 00	2 00	2 50	2 00	2 50	2 50	2 50
New Brunswick:																	
St. John.....	1873	2 00	2 00	2 00	2 00	1 50	1 50	1 50	1 50	1 50	1 50	2 00	2 50	1 50	2 00	2 00	2 00
St. John.....	1873	1 50	2 00	2 00	2 00	1 50	1 50	1 50	1 50	1 50	1 50	2 00	2 50	1 50	2 00	2 00	2 00
Frederickton.....	1873	1 50	2 00	2 00	2 00	1 50	1 50	1 50	1 50	1 50	1 50	2 00	2 50	1 50	2 00	2 00	2 00
Prince Edward's Island:																	
Charlottetown.....	1873	1 50	2 00	2 00	2 00	1 50	1 50	1 50	1 50	1 50	1 50	2 00	2 50	1 50	2 00	2 00	2 00
Newfoundland:																	
St. John's.....	1873	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00	1 00
Jamaica:																	
Kingston.....	1873	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50	4 50

\* Shipbuilders, \$2 to \$2.50; caulkers, \$2.50 to \$3.

Provinces and towns.	Year.	Shoemakers.		Stone-cutters.		Tailors.		Tanners.		Tinsmiths.		Wheelwrights.		Price of board per week.	
		With board.	Witho't board.	With board.	Witho't board.	With board.	Witho't board.	With board.	Witho't board.	With board.	Witho't board.	Men.	Women.		
Ontario:															
Bellefleur	1874				\$2 50		\$1 25		\$2 00		\$1 50		\$2 00		\$2 50
Carleton	1873	\$1 25	\$1 75	\$2 50	3 00		1 25		1 50		1 00		2 00		4 00
Dundas	1873	1 50	1 50	1 50	2 75		1 25		1 25		1 75		2 50		2 50
Durham	1873		1 62		1 87		2 25						2 12 1/2		2 00
Elgin	1874				3 50		1 50		2 00				1 75		3 00
Frontenac	1873		1 50	2 50	3 00		1 20		1 25		1 25		1 25		3 00
Grenville	1873	1 50	2 00	2 50	3 50		1 20		2 00		1 25		1 75		3 00
Hamilton	1873		2 00		3 50		1 25		2 00		1 25		1 75		3 00
Hastings	1874				3 50		1 50		2 00		1 50		2 00		3 00
Huron	1874	1 50		2 50											3 00
Kent	1873		1 50		2 50		1 75		1 25		1 50				3 00
Leeds	1873		1 50		3 00		1 50		1 50				1 75		3 00
Lincoln	1873		1 50	2 50	2 75		1 50		2 00				2 00		3 00
Northumberland	1873	1 00	1 25	1 50	1 75		1 25		1 25		1 25		1 50		2 50
Orillia	1873		1 50		2 37		1 25		1 25				1 75		2 50
Port Hope	1873		1 75		2 37		1 25		1 50				2 00		2 75
Pictou, Prince Edward Co	1873	1 50	2 00	2 50	3 00		1 50		2 00		1 50		2 00		3 00
St. Catharine's	1873		1 50	2 50	2 75		2 00		2 00		2 00		1 50		3 00
Stormont	1874	1 00	1 25		2 50		1 25		1 25		1 50		1 50		2 75
Quebec:															
Huntington	1873						1 00		1 25		80		1 00		2 25
Quebec	1873	1 80		1 80			1 50		1 00		1 20		1 50		3 00
Stanstead	1873		2 00		2 50				2 00				2 00		2 50
Three Rivers	1873	1 00	1 25		2 50		1 25		1 25		1 50		1 50		2 75
Nova Scotia:															
Halifax	1874														
Pictou	1873		1 50		2 50		1 50		1 75						
Windsor	1873		1 75		2 25		1 75		1 75						
New Brunswick:															
St. John	1873		1 50		2 00		1 50		1 50		1 50				
Fredericton	1873		1 50		2 00		1 60		1 25		1 00		1 25		2 50
Prince Edward's Island:	1873		1 80	1 40	1 80		1 25		1 60		1 00		1 30		1 60
Charlottetown	1873		1 25		2 25		2 00		1 25		1 25		1 60		1 60
Newfoundland:	1873		1 25		2 25		2 00		1 25		1 25		1 60		1 60
St. John's	1873		1 00		2 00		1 50		1 25		1 25		1 60		2 00
Jamaica:	1873		4 00				5 00		4 00				4 00		3 00
Kingston	1873														



## II.—FACTORY LABOR.

Statement showing the average rate of weekly wages paid to persons employed in various industries in Kingston, Cornwall, and Goderich, in the province of Ontario, in the year 1874.

Occupation.	Kingston.		Cornwall.		Goderich.	
	Hours of labor.	Wages.	Hours of labor.	Wages.	Hours of labor.	Wages.
Iron-molders.....	50	\$10 50	60	\$12 00	58	\$9 00 to \$12 50
Machinists { Best.....	50	9 60	60	12 00	58	12 00
{ Ordinary.....	50	8 00	60	10 50	58	9 00
{ Inferior.....	50	7 00	60	7 50	58	7 50
Helpers.....	50	6 60	60	6 00	58	6 00 to 7 50
Boiler-makers.....	50	10 50	60	15 00	58	12 00
Helpers.....	50	6 60	60	7 50	58	7 50
Riveters.....	50	9 60	60	15 00	58	9 00 to 12 00
Holders-on.....	50	7 20	60	7 50	58	7 50
Flangers.....	50	10 50	60	18 00	58	12 00 to 18 00
Helpers.....	50	6 60	60	7 50	58	7 50
Blacksmiths.....	50	10 50	60	12 00	58	12 00
Helpers.....	50	6 60	60	7 50	58	7 50
Foremen.....	50	15 00	60	18 00	58	16 00
Engineers.....	50	9 00	60	10 00	58	12 00
Pattern-makers.....	50	12 00	60	15 00	58	12 00
Assistants.....	50	6 00	60	10 50	58	7 50
Laborers, carters, &c.....	50	\$0 50 to 1 25	60	6 00	58	7 50
Apprentices.....	50	9 60	60	4 00	58	7 50
Carpenters.....	50	9 60	60	4 00	58	7 50
Millwrights.....	50	9 00	60	24 00	58	12 00
Assistants.....	50	10 50	60	10 50	58	7 50
Brass-founders.....	50	9 00	60	10 50	58	7 50
Fitters.....	50	10 50	60	10 50	58	7 50
Turners.....	50	10 00	60	10 50	58	10 50

NOTE.—The articles of manufacture in Kingston are locomotives; Cornwall, general manufactures; and Goderich, not stated.

Statement showing the average rate of weekly wages paid to persons employed in agricultural-implement factories in Kingston and Whitby, in the province of Ontario, in the year 1874.

[Hours of labor per week, in Kingston, 60; in Whitby, 59.]

Occupation.	Kingston.	Whitby.	Occupation.	Kingston.	Whitby.
Molders.....	\$9 00	\$10 00	Painters.....	\$9 00	\$10 00
Machinists.....	9 00	10 00	Engineers.....	10 50	12 00
Blacksmiths.....	9 00	9 00	Watchmen.....	7 50	12 00
Helpers.....	6 00	7 50	Teamsters.....	6 00	7 50
Grinders.....	7 50	7 50	Laborers or unskilled workmen.....	6 00	7 00
Wood-workers.....	7 50	9 00	Apprentices or boys.....	\$100 to 3 00	2 50
Plow-makers.....	9 00	9 00	Foremen or overseers.....	18 00	16 50
Pattern-makers.....	12 00	15 00			
Carpenters.....	9 00	9 00			

Statement showing the average weekly wages and daily earnings of persons employed in leather-manufactories in Belleville and Goderich, province of Ontario, in the year 1874.

[Hours of labor per week, 59.]

Occupation.	Weekly wages.	Daily earnings.	Occupation.	Weekly wages.	Daily earnings.
Sole-leather:			Upper leather, &c.—Contin'd.		
Tanners.....			Shavers.....	\$7 00	
Beam-hands.....		\$1 25	Table-hands, (scourers).....	6 00	
Yard-hands.....		1 00	Blackers.....	7 00	
Rollers and spongers.....		\$1 to 1 25	Finishers.....	\$8 to 10 00	
Bark-grinders.....		75	Engineers.....	7 00	\$1 25
Common laborers.....		1 00	Laborers or unskilled workmen.....	6 00	\$1 to 1 10
Upper leather and calf-skins:			Apprentices or boys.....		60c. to 75
Tanners.....	\$7 00		Foremen or overseers.....	12 00	(*)
Curriers.....	\$8 to 10 00				
Splitters.....	10 00				

\* \$85 to \$100 per month.

*Statement showing the average rate of weekly wages paid to persons employed in carriage-factories in Kingston, Cornwall, and Goderich, in the province of Ontario, in the year 1874.*

[Hours of labor per week, 60.]

Occupation.	Kingston.	Cornwall.	Goderich.
<b>Carriage-builders:</b>			
Body-makers .....		\$10 50	\$10 50
Carriage-part makers .....	\$10 00	9 00	
Wheelers .....	10 00	9 00	9 00
Coachsmiths .....	10 00	10 50	\$10 00 to 12 00
Helpers .....		6 00	
Finishers .....		12 00	
Ornamentera .....		12 00	
Painters .....	10 00	12 00	6 00 to 10 50
Trimmers .....	\$12 00 to 14 00	12 00	11 00
Stitchers .....		12 00	
Laborers or unskilled workmen .....		6 00	
Apprentices or boys .....	3 00 to 5 00	3 00	
Foremen .....		18 00	
<b>Car-builders:</b>			
Blacksmiths .....		10 50	
Helpers .....		6 00	
Painters .....		12 00	

*Statement showing the average rate of wages paid to persons employed in clothing-establishments in Kingston and Belleville, province of Ontario, in the year 1874.*

Occupation.	Kingston.		Belleville.	
	Piecework.	Weekly wages.	Piecework.	Weekly wages.
<b>Cutters for custom-clothing</b> .....		\$20 00		\$15 00 to \$20 00
Bushmen .....				8 00 to 10 00
Machine-operators .....		5 00		5 00
Finishers .....		15 00		9 00
Laborers or packers .....				8 00
Apprentices or boys .....		3 00		3 00
<b>Ready-made clothing:</b>				
Sack overcoats. { Fine .....			\$1 50	
{ Cheap .....			1 20	
Broadcloth frock-coats .....			1 75	
Cassimere business-coats .....			1 50	
Cassimere sack-coats .....			1 25	
Vests, woolen .....			50	
Pantaloon, woolen .....			50	
Shirts. { Muslin .....			3 00	
{ Woolen .....			1 75	
<b>Custom-made clothing:</b>				
Sack overcoats .....	\$4 00		4 00	
Broadcloth dress-coats .....	6 00		5 00	
Cassimere business coats .....	4 00		3 50	
Cassimere sack-coats .....	3 50		3 00	
Vests .....	1 25		1 00	
Pantaloon .....	1 25		1 00	
Shirts, muslin .....	6 00		6 00	

*Statement showing the average rate of weekly wages paid in iron-founderies and machine-shops in Dartmouth, Halifax County, in the province of Nova Scotia, in the year 1874.*

[Hours of labor per week, 60.]

Occupation.	Wages.	Occupation.	Wages.
<b>Iron-molders</b> .....	\$10 00	Blacksmiths' helpers .....	\$8 00
{ Best .....	15 00	Foremen .....	18 00
<b>Machinists</b> { Ordinary .....	9 00	Engineers .....	15 00
{ Inferior .....	7 00	Pattern-makers and carpenters .....	15 00
Helpers .....	6 00	Assistants .....	8 00
Boiler-makers .....	9 00	Laborers, carters, &c .....	7 00
Helpers .....	7 00	Apprentices .....	3 00
Riveters .....	9 00	Millwrights .....	15 00
Holders-on .....	7 00	Assistants .....	9 00
Flangers .....	12 00	Brass-founders .....	10 00
Helpers .....	8 00	Fitters .....	8 00
Blacksmiths .....	12 00	Turners .....	8 00

*Statement showing the average weekly wages of persons employed by the Grand Trunk Railway Company, with number employed, in the year 1874.*

[Hours of labor per week, about 60, when on full time.]

No.	Occupation.	Wages.	No.	Occupation.	Wages.
<b>Locomotive department:</b>			<b>Car department—Continued.</b>		
34	Machinists .....	\$15 00	2	Pattern-makers .....	\$14 50
64	Enginemen .....	18 00	10	Blacksmiths .....	16 50
59	Firemen .....	10 00	9	Helpers .....	10 00
38	Wipers or cleaners .....	10 00	6	Painters .....	12 00
4	Waterhousemen, (pumpmen) .....	11 00	9	Inspectors .....	12 00
4	Stationary engineers .....	10 00	6	Cleaners .....	9 00
11	Watchmen .....	11 50	<b>Track department:</b>		
16	Laborers .....	10 00	Yard-laborers .....		
7	Blacksmiths .....	15 00	Section-laborers .....		
5	Helpers .....	10 00	Construction-train, (extra gang) ..		
3	Boiler-makers .....	18 00	<b>Bridge department:</b>		
1	Coppersmith .....	20 00	Bridge-carpenters .....		
6	Carpenters .....	15 00	Engineer pile-drivers .....		
<b>Car department:</b>			<b>Stations:</b>		
25	Carpenters .....	14 00	Station-laborers .....		
42	Repairers .....	12 50	Stevedores .....		
7	Laborers .....	8 50	Scalemen .....		
6	Oilers .....	10 00	Laborers at small stations .....		
2	Machinists .....	10 00	Apprentices or boys .....		
2	Tinners .....	16 75	Foremen or overseers .....		

\* Contract-work.

#### AVERAGE EARNINGS OF WORK-PEOPLE.

The number of hands employed in the various industries of Canada in the census year 1870-'71 are indicated on a previous page, but the amount of wages paid annually was not stated.

The following table shows the number of hands employed, the aggregate amount of yearly wages, and the average earnings of each employé in the several provinces and in the Dominion :

Provinces.	Total number of hands employed.	Aggregate yearly wages.	Average yearly earnings.
Ontario .....	87,281	\$21,415,710	\$245 37
Quebec .....	66,714	12,389,673	185 71
New Brunswick .....	18,352	3,869,360	210 84
Nova Scotia .....	15,585	3,176,966	203 67
Total of the four provinces .....	187,942	40,851,009	217 36

While the average yearly earnings of work-people in the Dominion are undoubtedly small, it must be borne in mind that the aggregate includes some women and a large number of youths under sixteen years of age.

## III.—FARM LABOR.

Table showing the average wages paid for farm and other labor in different countries and towns in the provinces of Ontario, Quebec, Nova Scotia, New Brunswick, and Prince Edward's Island, in the Dominion of Canada, in the year 1873.

Province and town.	Experienced hands in—				Ordinary hands in—				Common laborers at other than farm-work.	Female servants.	
	Summer.		Winter.		Summer.		Winter.				
	With board.	Without board.	With board.	Without board.	With board.	Without board.	With board.	Without board.			
DAILY WAGES.											
Ontario:											
Belleville.....	\$1 25	\$1 50	\$1 00	\$1 25	\$1 25	\$0 80	\$1 00	\$1 25			
Carleton.....	1 00	1 25	80	1 00	75	1 00	75	1 00	75	1 00	
Dundas.....	1 25	1 75	1 00	1 25	1 87	1 00	1 25	1 25	1 25	1 50	
Elgin.....										1 37	
Durham.....					1 00	75	1 25	80	1 00		
Frontenac.....	1 20	1 50	1 00	1 25	80	1 00	75	1 00	80	1 00	
Grenville.....	1 00	1 25								1 25	
Hastings.....	1 25	1 50	1 00		1 00	1 25	75	1 00	75	1 00	
Huron, (1874).....	1 25	1 50	75	1 00	1 00	1 25	75	1 00		1 25	\$0 75
Kent.....	1 00	1 25	75	1 00	80	1 00	70	80	1 50	62	
Leeds.....	1 00	1 25	80	1 00	1 00	1 25	80	1 00	1 00	1 00	
Northumberland.....	80	1 25	60	80	70	1 00	50	75	60	1 00	30
Prince Edward.....	1 25	1 50	75	1 00	75	1 00	50	75	1 00	1 25	
Stormont.....	75	1 00	67	87	75	1 00	50	75	1 00	1 25	87
Saint Catharine's.....											
Quebec:											
Huntingdon.....	1 25	1 50	60	85	1 00	1 25	50	75	50	75	
Quebec.....	70	1 00	50	60	60	80	50	60	70	90	40 to 50
Stanstead.....	1 25	1 50	1 00	1 25	1 00	1 25	80	1 00	1 00	1 25	
Three Rivers.....	1 12	1 37	1 00	1 25	1 00	1 25	80	1 00	75	1 00	
Nova Scotia:											
Halifax.....	1 00	1 25	60	85	80	1 00	50	75			
Pictou.....										1 25	
Windsor.....	1 00	1 30	80	1 10	75	1 25		1 25	1 37	1 75	
New Brunswick:											
Saint John.....		1 50		1 00		1 20		90		1 00	
York.....	70	80	60	80	70	90	60	80	60	80	
Prince Edward's Island:											
Charlottetown.....										1 00	
Newfoundland:											
Saint John's.....	1 50				1 50		1 50		1 00		
Kingston.....		30¢				30				30¢	
MONTHLY WAGES.											
Ontario:											
Belleville.....	30 00		13 00								5 00
Carleton.....	20 00		12 00		15 00		10 00		15 00		8 00
Dundas.....	20 00		15 00		15 00		12 00		12 00		6 00
Durham.....	20 00		13 50		15 00		11 00				8 50
Elgin.....	23 00		20 00				15 00		25 00		
Frontenac.....	20 00		15 00								6 00
Grenville.....	20 00		15 00		15 00		12 00		15 00		6 00
Hamilton.....	20 00		15 00		10 00		7 50		13 00		7 00
Hastings.....	20 00		16 00		16 00						5 50
Huron.....	20 00										5 00
Kent.....	26 00		12 00		15 00		10 00				5 50
Leeds.....	24 00		16 00		15 00		10 00				6 50
Northumberland.....	15 00		12 00								
Prince Edward.....	20 00		10 00		8 00		5 00		10 00		5 00
Stormont.....	15 00		13 00		13 00		10 00		15 00		5 00
Saint Catharine's.....	20 00		13 50		12 00		10 00		15 00		7 00
Quebec:											
Quebec.....	12 00		10 00		8 00		7 00		14 00		5 00
Stanstead.....	25 00		18 00		18 00		12 00		15 00		8 00
Nova Scotia:											
Halifax.....	30 00		16 00		20 00		15 00		15 00		6 00
Pictou.....	16 00		16 00		10 00		10 00				5 00
Windsor.....	28 00		20 00		20 00		20 00		25 00		5 00
New Brunswick:											
Saint John.....											6 50
York.....	16 00		14 00		14 00		14 00		14 00		5 00
Prince Edward's Island:											
Charlottetown.....	13 00		11 00		8 50		6 00				3 00

## IV.—PRICES OF PROVISIONS, ETC.

*Statement showing the retail prices of provisions, groceries, and other leading articles of consumption, and of house-rent and board, in the following towns in the province of Ontario, Dominion of Canada.*

Articles.	Belle-ville.	Brock-ville.	Chatham.	Cobourg.	Chatham.
	1872.	1872.	1872.	1873.	1874.
<b>PROVISIONS.</b>					
Flour, wheat, superfine.....per barrel.	\$6 25	\$9 00	\$6 to \$7 00	\$6 50	\$5 50
Flour, wheat, extra family.....do.....	6 50	8 00	7 00	7 25	7 00
Flour, rye.....do.....	4 00	5 00	-----	4 25	5 00
Corn meal.....do.....	3 00	4 00	3 00	3 50	5 00
Beef, fresh, roasting-pieces.....per pound.	10	10	08	10	10
Beef, fresh, soup-pieces.....do.....	08	08	06	06	07
Beef, fresh, rump-steaks.....do.....	10	10	10	11	12
Beef, corned.....do.....	08	10	05	07	10
Veal, fore quarters.....do.....	04	05	03	05	06
Veal, hind quarters.....do.....	05	05	05	07	07
Veal cutlets.....do.....	08	05	08	10	10
Mutton, fore quarters.....do.....	05	10	05	06	06
Mutton, leg.....do.....	06	10	08	09	10
Mutton chops.....do.....	10	10	08	10	10
Pork, fresh.....do.....	10	09	08	07	10
Pork, corned or salted.....do.....	10	07	10	09	12
Pork, bacon.....do.....	10	10	12	10	15
Pork, hams, smoked.....do.....	12	15	15	12	17
Pork, shoulders.....do.....	10	10	10	11	15
Pork, sausages.....do.....	12	13	13	12	15
Lard.....do.....	10	13	12	12	18
Codfish, dry.....do.....	07	05	06	07	07
Mackerel, pickled.....do.....	10	10	10	07	06
Butter.....do.....	20	25	18	18	25
Cheese.....do.....	15	13	15	15	17
Potatoes.....per bushel.	40	25	65	35	40
Rice.....per pound.	10	05	06	05	06
Beans.....per quart.	05	05	05	05	05
Milk.....do.....	05	05	05	05	05
Eggs.....per dozen.	15	15	20	12	20
<b>GROCERIES, ETC.</b>					
Tea, Oolong or other good black.....per pound.	70	70	75	50	80
Coffee, Rio, green.....do.....	25	25	30	25	30
Coffee, Rio, roasted.....do.....	30	30	30	30	33
Sugar, good brown.....do.....	09	10	10	10	10
Sugar, yellow C.....do.....	10	11	11	11	11
Sugar, coffee B.....do.....	11	11	12	12	12
Molasses, New Orleans.....per gallon.	-----	50	50	50	60
Molasses, Porto Rico.....do.....	-----	50	50	50	60
Sirup.....do.....	60	75	75	70	75
Soap, common.....per pound.	09	06	08	07	07
Starch.....do.....	10	13	12	10	13
Fuel, coal.....per ton.	7 00	7 00	9 00	7 50	9 00
Fuel, wood, hard.....per cord.	4 00	4 00	3 50	5 00	4 00
Fuel, wood, pine.....do.....	2 00	2 50	None	2 75	2 50
Oil, coal.....per gallon.	40	50	40	40	40
<b>DOMESTIC DRY GOODS, ETC.</b>					
Shirtings, brown, 4-4, standard quality.....per yd.	10	14	11	12	15
Shirtings, bleached, 4-4, stand. quality.....do.....	12	15	12	13	17
Sheetings, brown, 9-8, standard quality.....do.....	-----	30	12	33	40
Sheetings, bleached, 9-8, stand. quality.....do.....	-----	40	12	50	50
Cotton-flannel, medium quality.....do.....	30	25	20	20	20
Tickings, good quality.....do.....	30	25	37	35	30
Prints, Merrimac.....do.....	15	13	12	17	15
Mousseline de laines.....do.....	15	25	10	25	15
Satinets, medium quality.....do.....	75	90	50	75	75
Boots, men's heavy.....per pair.	2 50	5 00	2 75	2 75	2 00
<b>HOUSE-RENT.</b>					
Four-roomed tenements.....per month.	4 00	5 00	6 00	6 00 to 8 00	5 00
Six-roomed tenements.....do.....	5 00	7 00	10 00	8 00 to 10 00	8 00
<b>BOARD.</b>					
For men, (mechanics, &c.).....per week.	2 50	3 00	3 00	2 25 to 3 00	4 00
For women employed in factories.....do.....	-----	2 50	2 25	1 75 to 2 00	2 50

Statement showing the retail prices of provisions, groceries, &amp;c.—Continued.

Articles.	Cornwall.	Goderich.	Hamilton.	Kingston.
	1872.	1874.	1873.	1874.
<b>PROVISIONS.</b>				
Flour, wheat, superfine.....per barrel.	\$5 50 to \$9 00	\$5 00	\$7 00	\$5 50
Flour, wheat, extra family.....do.		4 50	7 00	6 50
Flour, rye.....do.	2 50		3 00	4 00
Corn meal.....do.	2 50	4 25		3 50
Beef, fresh, roasting-pieces.....per pound.	10		10	10
Beef, fresh, soup-pieces.....do.	07		06	07
Beef, fresh, rump-steaks.....do.	10		10	12½
Beef, corned.....do.	03		06	07
Veal, fore quarters.....do.	05		09	06
Veal, hind quarters.....do.	06½		08	07
Veal cutlets.....do.	06½		10	10
Mutton, fore quarters.....do.	08		06	07
Mutton, leg.....do.	10		07	08
Mutton chops.....do.	10		07	10
Pork, fresh.....do.	08 to 10		11	09
Pork, corned or salted.....do.	08	12½	12	11
Pork, bacon.....do.	15 to 18	\$0 12 to 15	12	11
Pork, hams, smoked.....do.	15	15 to 16	14	14
Pork, shoulders.....do.	12½	12	13	12½
Pork, sausages.....do.	12½	15	12½	09
Lard.....do.	12½	15 to 18	13	17
Cod fish, dry.....do.	07	06 to 08	07	06
Mackerel, pickled.....do.	06	10	07	06½
Butter.....do.	20	20 to 30	25	25
Cheese.....do.	16	15 to 17	61	15
Potatoes.....per bushel.	40	50 to 90	60	60
Rice.....per pound.	06	06	05	05
Beans.....per quart.	05	05		10
Milk.....do.	06	05	07	06
Eggs.....per dozen.	15	20	25	25
<b>GROCERIES, ETC.</b>				
Tea, Oolong or other good, black.....per pound	45 to 75	75 to 1 00	1 00	50
Coffee, Rio, green.....do.	25 to 35	30	30	20
Coffee, Rio, roasted.....do.	30 to 40	35	35	27
Sugar, good brown.....do.	10	10	10	08½
Sugar, yellow C.....do.	11	11	12	10½
Sugar, coffee B.....do.	12½	11	12½	11
Molasses, New Orleans.....per gallon.	40	60		50
Molasses, Porto Rico.....do.	35 to 40			60
Sirup.....do.	55 to 75	80 to 1 00	1 00	70
Soup, common.....per pound.	07 to 10	07 to 10	05	05
Starch.....do.	12 to 20	12½	12½	10
Fuel, coal.....per ton	8 00	7 00 to 10 00	8 00	7 50
Fuel, wood, hard.....per cord	5 00	2 50 to 2 75	8 00	4 50
Fuel, wood, pine.....do.	3 00		4 00	3 00
Oil, coal.....per gallon	50 to 60	40		29
<b>DOMESTIC DRY GOODS, ETC.</b>				
Shirtings, brown, 4-4, standard quality.....per yard.	15	08 to 15	08 to 16	12½
Shirtings, bleached, 4-4, standard quality.....do.	12 to 20	10 to 20	10 to 20	15
Sheetings, brown, 9-8, standard quality.....do.	25 to 30	30 to 45	08 to 16	30
Sheetings, bleached, 9-8, standard quality.....do.	40	45 to 75	10 to 20	40
Cotton-flannel, medium quality.....do.	20 to 25	20	16	25
Ticking, good quality.....do.	30 to 35	20 to 40	30	30
Prints, Merrimac.....do.	12½ to 20	10 to 13	12½ to 25	15
Mousseline de laines.....do.	20 to 40	30	25	17
Satinets, medium quality.....do.	60 to 1 00	50	62½	75
Boots, men's heavy.....per pair.	2 50 to 3 00	2 40	2 50 to 4 00	2 00
<b>HOUSE-RENT.</b>				
Four-roomed tenements.....per month.	4 00 to 8 00		8 00	4 00
Six-roomed tenements.....do.	7 00 to 12 00		10 00	7 00
<b>BOARD.</b>				
For men, (mechanics, &c.).....per week	4 00 to 6 00		3 50 to 4 50	3 00
For women employed in factories.....do.	2 50 to 3 00		3 00	2 00

Statement showing the retail prices of provisions, groceries, &amp;c.—Continued.

Articles.	Morris- burg.	Ottawa.	Pictou.	Port Hope.	Port Stanley.
	1872.	1873.	1873.	1872.	1872.
<b>PROVISIONS.</b>					
Flour, wheat, superfine ..... per bbl.	\$6 50	\$6 50	\$6 50	\$5 75	\$3 25
Flour, wheat, extra family ..... do.	8 00	7 00	7 00	6 50	3 75
Flour, rye ..... do.	4 00	5 00	3 50	Not used.	2 00
Corn meal ..... do.	3 00	3 50	3 00	4 00	3 80
Beef, fresh, roasting-pieces ..... per lb.	08	10	08	12½	10
Beef, fresh, soup-pieces ..... do.	05	06	04	07	06
Beef, fresh, rump-steaks ..... do.	08	13	10	12½	08
Beef, corned ..... do.	05	10	05	08	07
Veal, fore quarters ..... do.	04	10	04	05	04
Veal, hind quarters ..... do.	05	12	05	06	05
Veal cutlets ..... do.	05	15	05	08	08
Mutton, fore quarters ..... do.	09	06	05	07	07
Mutton, leg. .... do.	10	08	07	09	09
Mutton chops ..... do.	10	12	08	10	08
Pork, fresh ..... do.	09	12	08	10	08
Pork, corned or salted ..... do.	10	10	10	09	08
Pork, bacon ..... do.	10	15	10	12½	10
Pork, hams, smoked ..... do.	12	17	10	16	12
Pork, shoulders ..... do.	10	12	09	12½	11
Pork, sausages ..... do.	13	12	10	12½	12
Lard ..... do.	10	15	10	14	10
Codfish, dry ..... do.	07	06	06	07	06
Mackerel, pickled ..... do.	03	07	08	-----	03
Butter ..... do.	20	25	17	16	14
Cheese ..... do.	10	15	13	14	12½
Potatoes ..... per bush.	30	35	35	\$0 30 to 50	50
Rice ..... per lb.	05	06	05	06	06
Beans ..... per qt.	06	10	05	04	05
Milk ..... do.	05	06	05	05	05
Eggs ..... per doz.	15	20	13	15	12½
<b>GROCERIES, ETC.</b>					
Tea, Oolong or other good black ..... per lb.	60	60	50	75	75
Coffee, Rio, green ..... do.	28	30	40	25	30
Coffee, Rio, roasted ..... do.	30	30	40	35	35
Sugar, good brown ..... do.	10	10	09	11	10
Sugar, yellow C ..... do.	14	11	10	10	12
Sugar, coffee B ..... do.	15	12	12	10	11
Molasses, New Orleans ..... per gall.	35	50	50	50	60
Molasses, Porto Rico ..... do.	40	40	60	40	75
Sirup ..... do.	60	60	75	80 to 1 00	1 00
Soap, common ..... per lb.	08	04	09	07	08 to 10
Starch ..... do.	13	12	15	13	14
Fuel, coal ..... per ton.	8 00	9 00	7 50	7 00	6 00 to 8 00
Fuel, wood, hard ..... per cord.	3 50	5 50	3 50	5 00	4 00
Fuel, wood, pine ..... do.	2 50	2 50	2 50	3 25	None.
Oil, coal ..... per gall.	45	50	40	45	40
<b>DOMESTIC DRY GOODS, ETC.</b>					
Shirtings, brown, 4-4, stand. quality ..... per yd.	20	14	20	19	25
Shirtings, bleached, 4-4, stand. quality ..... do.	18	14	20	12½	12½
Sheetings, brown, 9-8, standard quality ..... do.	20	18	13	30	32
Sheetings, bleached, 9-8, stand. quality ..... do.	20	18	15	37	55
Cotton-flannel, medium quality ..... do.	25	20	40	20	20
Tickings, good quality ..... do.	25	30	17	35	37½
Prints, Merrimac ..... do.	13	15	15	14	14
Mousseline de laines ..... do.	25	20	20	12	30
Satinets, medium quality ..... do.	60	75	80	40	1 00
Boots, men's heavy ..... per pair.	3 50	3 50	2 50	2 00 to 3 00	3 00
<b>HOUSE-RENT.</b>					
Four-roomed tenements ..... per month.	7 00	8 00	4 50	3 00 to 6 00	3 00
Six-roomed tenements ..... do.	8 00	12 00	7 50	4 00 to 7 00	5 00
<b>BOARD.</b>					
For men, (mechanics, &c.) ..... per week.	2 50	4 00	3 00	2 50 to 3 50	2 50
For women employed in factories ..... do.	2 00	2 50	2 50	1 50 to 2 50	1 50

Statement showing the retail prices of provisions, groceries, &amp;c.—Continued.

Articles.	Prescott.	St. Catharines.	Average in Province of Ontario, in—		
	1873.	1873.	1872.	1873.	1874.
<b>PROVISIONS.</b>					
Flour, wheat, superfine ..... per bbl.	\$6 50	\$7 00	\$6 35	\$6 75	\$5 33
Flour, wheat, extra family ..... do.	7 50	7 80	5 84	7 12	6 00
Flour, rye ..... do.			3 50	4 62	4 50
Corn-meal ..... do.	3 55	1 50	3 21	2 84	4 25
Beef, fresh, roasting-pieces ..... per lb.	10	\$0 08 to 10	09½	12½	10
Beef, fresh, soup-pieces ..... do.	06	06	06½	05½	07
Beef, fresh, rump-steaks ..... do.	10	08	09½	10½	12½
Beef, corned ..... do.	07	09	07	07	06½
Veal, fore quarters ..... do.	05	04 to 05	04½	06	06
Veal, hind quarters ..... do.	08	05 to 06	05½	07½	07
Veal-outlets ..... do.	10	10	09½	10	10
Mutton, fore quarters ..... do.	08	05	07	06	07½
Mutton, leg ..... do.	10	06	06½	08	09
Mutton-chops ..... do.	10	10	09½	09½	10
Pork, fresh ..... do.	10	08	09	09½	09½
Pork, corned or salted ..... do.	09	10	07	10	12
Pork, bacon ..... do.	13	12	11½	12	13
Pork, hams, smoked ..... do.	17	12 to 14	14	14	15½
Pork, shoulders ..... do.	09	10	11	10½	13
Pork, sausages ..... do.	13	10	12½	11½	13
Lard ..... do.	13	12	11½	12½	17
Cod-fish, dry ..... do.	06	06	04½	06½	06½
Mackerel, pickled ..... do.	05	06	08	06½	08
Butter ..... do.	22	20 to 25	19	21½	25
Cheese ..... do.	13	10	14	21	16
Potatoes ..... per bush	30	50	41½	41	56½
Rice ..... per lb.	05	08	06	05½	05½
Beans ..... per qt.	05	06	05	06	06½
Milk ..... do.	05	06	05	05½	05½
Eggs ..... per doz.	17	12 to 20	15½	17½	21½
<b>GROCERIES, ETC.</b>					
Tea, Oolong or other good black ..... per lb.	65	50 to 1 00	69½	66½	72½
Coffee, Rio, green ..... do.	23	25	20	27	26½
Coffee, Rio, roasted ..... do.	35	30	32	33½	31½
Sugar, good brown ..... do.	10	09	10	09½	09½
Sugar, yellow C ..... do.	11	10	11½	11	10½
Sugar, coffee B ..... do.	13	12	11½	12	11½
Molasses, New Orleans ..... per gall.	50	50	47½	50	56½
Molasses, Porto Rico ..... do.		50	42½	50	60
Sirup ..... do.	70	75	75	75	78½
Soap, common ..... per lb.	10	05	08	07½	06½
Starch ..... do.	13	12	13	12½	11½
Fuel, coal ..... per ton.	7 00	8 00	7 57	7 83	8 33
Fuel, wood, hard ..... per cord.	3 50	6 50 to 7 00	4 14	5 37	3 71
Fuel, wood, pine ..... do.	2 00		2 65	2 75	2 75
Oil, coal ..... per gall.	50	50	45	46	36½
<b>DOMESTIC DRY GOODS, ETC.</b>					
Shirtings, brown, 4-4, stand. quality ..... per yd.	12	12½	15½	14	13
Shirtings, bleached, 4-4, stand. quality ..... do.	14	16	14½	17	15½
Sheetings, brown, 9-8, stand. quality ..... do.	35	14	25½	21	35½
Sheetings, bleached, 9-8, stand. quality ..... do.	45	17	34	26½	50
Cotton-flannel, medium quality ..... do.	25	18	26	23	21½
Tickings, good quality ..... do.	35	30	31½	28½	30
Prints, Merrimac ..... do.	17	15	14	16½	14½
Mousseline de laine ..... do.	25	25	21	23½	20½
Satinets, medium quality ..... do.	35	75	71	67	66½
Boots, men's heavy ..... per pair.	5 00	3 00	2 75	3 40	2 13
<b>HOUSE-RENT.</b>					
Four-roomed tenements ..... per month	3 00	6 00 to 5 00	4 43	6 00	4 50
Six-roomed tenements ..... do.	4 00	8 00 to 6 00	6 36	8 25	7 50
<b>BOARD.</b>					
For men, (mechanics, &c.) ..... per week.	3 00	3 00 to 4 00	2 64	3 35	3 50
For women employed in factories ..... do.	2 00	3 00	2 29	2 48	2 25



Statement showing the retail prices of provisions, groceries, and other leading articles of consumption, and of house-rent and board, in the following towns of the province of Quebec, Dominion of Canada.

Articles.	Hemingford.	Quebec.	Stanstead	Three Rivers.	Average in province of Quebec.
	1873.	1872.	1872.	1873.	
<b>PROVISIONS.</b>					
Flour, wheat, superfine..... per bbl.	\$7 00	\$7 25	\$8 00	\$7 50	\$7 44
Flour, wheat, extra family..... do.	7 25	7 50	9 50	8 50	8 19
Flour, rye..... do.	5 00	4 00			4 50
Corn-meal..... do.		4 80	3 00	5 00	4 37
Beef, fresh, roasting pieces..... per lb.	12	10	12	10	11
Beef, fresh, soup pieces..... do.	05	09	06		06½
Beef, fresh, rump-steaks..... do.	08	09	13	10	10
Beef, corned..... do.	19	09	08	10	09½
Veal, fore quarters..... do.	08	10	05	07	08
Veal, hind quarters..... do.	12	10	08	12	10½
Veal cutlets..... do.	04	10	12½	10	09
Mutton, fore quarters..... do.	09	08	10	10	09½
Mutton, leg..... do.	09	10	12½	10	10½
Mutton chops..... do.	10	10	12½	15	11½
Pork, fresh..... do.	07	10	11	9	09½
Pork, corned or salted..... do.	10	11	12½	12½	11½
Pork, bacon..... do.	12	15		15	14
Pork, hams, smoked..... do.	14	15	12½	12	13½
Pork, shoulders..... do.	10	12		10	10½
Pork, sausages..... do.	12½	15	15	15	14½
Lard..... do.	10	15	15	15	13½
Codfish, dry..... do.	07	05	07	05	06
Mackerel, pickled..... do.	10	05	08	05	07
Butter..... do.	22	23	23	20	22½
Cheese..... do.	16	13	15	17	15½
Potatoes..... per bush.	40	35	35	50	40
Rice..... per lb.	05	05	07	05	05½
Beans..... per qt.	07	06	08	05	06½
Milk..... do.	07	05	05	05	05½
Eggs..... per doz.	20	20	17	20	19½
<b>GROCERIES, ETC.</b>					
Tea, Oolong or other good black..... per lb.	65	70	90	75	75
Coffee, Rio, green..... do.	30	15	25	34	26
Coffee, Rio, roasted..... do.	33	19	30		27½
Sugar, good brown..... do.	11	09	10	10	10
Sugar, yellow C..... do.	10	10	12½		10½
Sugar, coffee B..... do.	12	10			11
Molasses, New Orleans..... per gall.	45	25		25	31½
Molasses, Porto Rico..... do.	40	25		35	34
Sirup..... do.	70	50	75	50	61½
Soap, common..... per lb.	08	08	10	07	08½
Starch..... do.	12½	15	15	15	14½
Fuel, coal..... per ton.	8 00	5 25		8 75	7 33
Fuel, wood, hard..... per cord.	2 00	4 80		5 50	4 10
Fuel, wood, pine..... do.	1 00	3 20	4 00	4 50	3 17
Oil, coal..... per gall.	50	45	50	50	48½
<b>DOMESTIC DRY GOODS, ETC.</b>					
Shirtings, brown, 4-4, standard quality..... per yd.	23	15	14	19½	16½
Shirtings, bleached, 4-4, standard quality..... do.	15	18½	15	12½	15½
Sheetings, brown, 9-8, standard quality..... do.	16	25	17	35	23½
Sheetings, bleached, 9-8, standard quality..... do.	18	35		65	30½
Cotton-flannel, medium quality..... do.	30	25	20	30	26½
Tickings, good quality..... do.	37½	30	30	35	33½
Prints, Merrimac..... do.	15	90	12½	13	15½
Mousseline de laines..... do.	40	20	25	15	25
Satinets, medium quality..... do.		25			25
Boots, men's heavy..... per pair.	3 00	3 50	3 00	3 50	3 25
<b>HOUSE-RENT.</b>					
Four-roomed tenements..... per month.	3 00	4 50	4 00	5 00	4 13
Six-roomed tenements..... do.	5 00	6 00	7 00	9 00	6 75
<b>BOARD.</b>					
For men, (mechanics, &c.)..... per week.	2 50	3 00	3 00	2 50	2 75
For women employed in factories..... do.	2 50	1 50	2 50	2 00	2 12

*Statement showing the retail prices of provisions, groceries, and other leading articles of consumption, and of house-rent and board, in the following towns of the provinces of New Brunswick, Prince Edward's Island, and Newfoundland, and in the town of Kingston, Jamaica, West Indies, in the year 1873.*

Articles.	NEW BRUNSWICK.		PRINCE EDWARD'S ISLAND.	NEWFOUNDLAND.	Average in maritime provinces of Dominion.	JAMAICA.
	St. John.	Fred. erickton.	Charlotte-town.	St. John's.		Kingston.
PROVISIONS.						
Flour, wheat, superfine..... per bbl.	\$9 00	\$7 50	\$7 50	\$9 00	\$8 25	
Flour, wheat, extra family..... do.	11 00	8 75	9 00	10 00	9 69	\$11 12
Flour, rye..... do.	6 00			8 03	7 00	
Corn meal..... do.	4 00	4 50	4 50	4 75	4 44	6 28
Beef, fresh, roasting-pieces..... per lb.	15	12	12	20	14½	12
Beef, fresh, soup pieces..... do.	03	09	08	15	08½	12
Beef, fresh, rump steaks..... do.	16	13	12	20	15½	12
Beef, corned..... do.	12	11	08	10	10½	12
Veal, fore quarters..... do.	06	05	04	15	07½	15
Veal, hind quarters..... do.	08	07½	05	20	10½	15
Veal cutlets..... do.	10	11	05	20	11½	15
Mutton, fore quarters..... do.	06	06	06	15	08½	18
Mutton, leg..... do.	10	09	08	20	11½	18
Mutton chops..... do.	15	11	08	20	13½	18
Pork, fresh..... do.	10	10	08	20	12	12
Pork, corned or salted..... do.	12	13	10	15	12½	18
Pork, bacon..... do.	16	13	10	17	13	16
Pork, hams, smoked..... do.	17	15	12	26	17½	36
Pork, shoulders..... do.	13	11	09	15	12	12
Pork, sausages..... do.	15	15	12	20	15½	12
Lard..... do.	20	15	15	20	17½	12
Codfish, dry..... do.	05	05	04	05	04½	
Mackerel, pickled..... do.	None.	09	06	05	06½	12
Butter..... do.	28	22	22	30	25½	48
Cheese..... do.	19	19	22	20	20	36
Potatoes..... per bush.	1 00	70	25	80	69	
Rice..... per lb.	07	07½	06	05	06½	
Beans..... per qt.	10	12	12	10	11	12
Milk..... do.	07	06	06	10	07½	12
Eggs..... per doz.	25	20	20	20	21½	36
GROCERIES, ETC.						
Tea, Oolong or other good black per lb.	60	52	40	85	59	1 20
Coffee, Rio, green..... do.	28	26	15	30	24½	36
Coffee, Rio, roasted..... do.	34	32	23	35	31	30
Sugar, good brown..... do.	12	10	09	12	10½	06
Sugar, yellow C..... do.	11	11	12	10	11	12
Sugar, coffee B..... do.		13		13	13	12
Molasses, New Orleans..... per gall.				50	50	1 44
Molasses, Porto Rico..... do.	60	50	50		56	1 44
Sirup..... do.	1 00				1 00	96
Soap, common..... per lb.	10	09	09	09	09½	24
Starch..... do.	16	17	20	10	15½	12
Fuel, coal..... per ton.	7 00	7 50	3 00	8 00	6 37	
Fuel, wood, hard..... per cord.	7 00	4 00	5 50	3 50	5 00	3 84
Fuel, wood, pine..... do.	5 00	2 75			3 87	3 84
Oil, coal..... per gall.	55	50	50	37	48	73
DOMESTIC DRY GOODS, ETC.						
Shirtings, brown, 4-4, standard quality..... per yd.	13	15	14	15	14½	12
Shirtings, bleached, 4-4, standard quality..... per yd.	17	17	15	20	17½	24
Sheetings, brown, 9-8, standard quality..... per yd.	17	17	28	30	23	12
Sheetings, bleached, 9-8, standard quality..... per yd.	22	17	30	44	28½	24
Cotton-fannel, medium quality..... do.	24	45	27	25	30½	12
Tickings, good quality..... do.	33	28	32	35	32	18
Prints, Merrimac..... do.	16	15	15	16	15½	12
Mousseline de laines..... do.	20	30	20	20	17½	36
Satinets, medium quality..... do.	60	80		40	60	48
Boots, men's heavy..... per pair.	4 50	4 50	4 50	4 00	4 38	2 40
HOUSE-RENT.						
Four-roomed tenements..... per month	6 00	4 00	6 00	4 00	5 00	6 00
Six-roomed tenements..... do.	9 00	5 50	8 00	6 00	7 12	14 52
BOARD.						
For men, (mechanics, &c.).. per week.	4 00	3 00	3 00	6 00	4 00	2 52
For women employed in factories..... do.	3 50		2 00	2 50	2 67	

## V.—WEEKLY EXPENDITURES OF WORKINGMEN'S FAMILIES.

Table showing the average weekly expenditures of the families of workmen in the following towns in the province of Ontario, in the Dominion of Canada, with their average weekly earnings, in the year 1873.

Articles.	Belleville.	Brook-ville.	Cornwall.	Goderich.	Hamilton.	Ottawa.	Picton.	Port Hope.	Prescott.	Average in province of Ontario.
	2 adults and 3 children.	2 adults and 3 children.	2 adults and 4 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 3 children.	2 adults and 4 children.	2 adults and 4 children.	2 adults and 3 children.	
Flour and bread .....	\$0 30	\$0 40	\$1 00	\$1 50	\$0 90	\$0 70	\$0 60	\$1 00	\$0 60	\$0 77½
Meats, fresh, corned, salted, or smoked.	60	1 20	2 00	4 00	1 50	1 00	75	1 00	90	1 44
Lard .....	25	15	40	1 15	1 25	15	10	28	40	19½
Butter .....	40	72	1 40	1 75	1 25	40	60	48	40	82½
Cheese .....	05	05	40	75	70	25	05	28	05	16½
Sugar and molasses .....	20	15	1 50	70	42	32	50	30	45	60
Milk .....	30	35	40	70	42	32	15	30	10	33
Coffee .....	06	06	20	1 00	1 00	25	10	15	05	12½
Tea .....	50	14	18	1 00	1 00	25	15	15	20	34½
Fish, fresh and salt .....	10	13	25	30	38	30	20	15	15	16
Soap, starch, salt, pepper, vinegar, &c.	10	15	30	30	30	30	20	15	25	17½
Eggs .....	25	25	20	1 00	08	75	25	42	30	26½
Potatoes and other vegetables .....	20	25	50	1 00	08	75	25	20	30	46
Fruits, green and dried .....	15	15	25	50	1 75	75	50	50	40	1 04½
Fuel .....	50	1 50	1 00	1 00	1 75	75	50	50	40	1 04½
Oil or other light .....	10	15	20	40	30	25	10	25	10	21
Other articles .....	32	15	1 00	25	10½	30	10	75	40	37
Spirits, beer and tobacco, (if any) .....	1 00	1 50	2 00	3 00	3 37½	1 00	1 00	1 25	75	28
Houses-rent .....	13	25	1 50	3 00	1 00	20	15	1 00	20	1 65½
Educational, religious, and benevolent objects .....										55½
Total weekly expenses .....	5 00	7 70	14 78	16 45	13 81	7 27	4 85	12 33	5 50	9 74
Total expenses (52 weeks) .....	260 00	400 40	768 56	855 40	718 12	378 04	252 20	641 16	286 00	508 65
Clothing per year .....	50 00	50 00	100 00	300 00	100 24	75 00	75 00	100 00	50 00	100 00
Taxes per year .....	18 00	4 00	5 00	30 00	24 00	6 00	0 00	5 25	4 75	11 45
Total yearly expenses .....	328 00	454 40	873 56	1,185 40	842 36	459 04	333 20	746 41	340 75	618 12
Weekly earnings .....	2 00	0 00	20 00	50 00	15 00	9 00	10 00	15 00	7 00	16 00
Yearly earnings, (52 weeks) .....	416 00	403 00	1,040 00	2,600 00	780 00	468 00	520 00	780 00	364 00	832 00

Table showing the average weekly expenditures of the families of workmen in the following towns of the provinces of Quebec, Nova Scotia, New Brunswick, and Newfoundland, and in the town of Kingston, Jamaica, West Indies, in the year 1873.

Articles.	QUEBEC.						NOVA SCOTIA.		NEW BRUNSWICK.		NEWFOUNDLAND.		JAMAICA.	
	Huntingdon.	Morrisburg.	Stanstead.	Three Rivers.	Woodly.	Average in prov. of Quebec.	Pictou.	Windsor.	St. John.	St. John's.	Average in maritime provinces of Dominion.	Kingston.	2 adults and 3 children.	2 adults and 3 children.
	2 adults and 3 children.	2 adults and 3 children.	2 adults and 1 child.	2 adults and 3 children.	2 adults and 4 children.		2 adults and 3 children.	2 adults and 4 children.	2 adults and 3 children.	2 adults and 3 children.				
Flour and bread	\$0 50	\$0 50	\$0 54	\$1 00	\$1 60	\$0 82	\$1 50	\$2 00	\$1 00	\$2 40	\$1 73½		\$1 26	
Meats, fresh, corned, salted, and smoked.	35	75	75	50	1 50	77	36	1 00	1 00	40	69		1 75	
Lard	07	10	14	10	30	20	50	50	50	50	50		50	
Butter	35	40	37	75	1 00	57½	1 30	75	1 00	30	36½		1 00	
Cheese	10	10	10	15	15	12½	40	35	30	35	35		35	
Sugar and molasses.	35	25	23	50	70	40½	52	50	1 25	24	62½		1 00	
Molasses or sirup	50	10	10	20	13	15½								
Milk	17	10	18	95	50	14	06	30	50	20	26½		1 00	
Coffee		15	03	10	18	11½	13	16	25	09	152		1 00	
Tea	20	25	09	25	30	21½	30	25	60	20	31½			
Fish, fresh and salt.	20	10	08	20	15	14½	30	50	50	20	30			
Soap, starch, salt, pepper, vinegar, &c.	15	20	10	10	15	14	34	50	50	10	36		1 00	
Eggs	20	10	04	10	25	14	25	20	25	25	23½			
Potatoes and other vegetables	25	25	10	50	30	28	60	30	30	30	40		75	
Fruits, green and dried	10	20	12	10	30	13	25	100	30	60	75		50	
Fuel	40	1 00	61	25	70	59	40	1 00	1 00	54	27½		75	
Oil or other light	20	40	10	25	25	24	10	15	50	45	10		1 00	
Other articles				15		15	40	50	45	10	10			
Spirits, beer, and tobacco, (if any)	50		05	50	30	26½	10	15	05	10	10			
House-rent	60	50	1 00	50	1 00	72	1 50	1 00	2 50	1 00	1 50		2 50	
Educational, religious, and benevolent objects	25		10	25	60	26	25	25	30	27	26½		1 50	
Total weekly expenses	4 74	5 55	4 73	6 90	9 66	6 31½	9 66	10 76	12 99	8 30	10 42½		16 26	
Total expenses (52 weeks)	246 46	288 60	245 96	358 80	502 32	328 43	502 32	559 52	675 48	431 60	542 23		845 52	
Clothing per year	30 00	100 00	30 00	40 00	30 40	54 00	40 00	100 00	90 00	60 00	110 00		25 00	
Taxes per year	5 54	5 00	2 00	4 00	5 00	4 30	10 00	5 00	20 00	10 25	11 31		6 00	
Total yearly expenses	292 02	393 60	327 96	392 80	537 32	386 74	592 32	664 52	895 48	501 85	663 54		876 52	
Weekly earnings	7 00	10 00	9 00	7 50	10 00	8 70	9 00	12 00	24 00	9 00	13 50		20 00	
Yearly earnings (52 weeks)	364 00	520 00	468 00	390 00	520 00	452 40	468 00	624 00	1,248 00	468 00	702 00		1,040 00	



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